```
=> fil reg
FILE 'REGISTRY' ENTERED AT 12:04:42 ON 16 SEP 2001
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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STRUCTURE FILE UPDATES:   14 SEP 2001  HIGHEST RN 357154-15-5
DICTIONARY FILE UPDATES:  14 SEP 2001  HIGHEST RN 357154-15-5

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Structure search limits have been increased.  See HELP SLIMIT
for details.

=> d ide can tot

L90  ANSWER 1 OF 53  REGISTRY  COPYRIGHT 2001 ACS
RN   178487-70-2  REGISTRY
CN   Disulfide, bis(2,3-dimethoxyphenyl) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   NSC 677472
FS   3D CONCORD
MF   C16 H18 O4 S2
SR   CA
LC   STN Files:   CA, CAPLUS, CHEMCATS, TOXLIT, USPATFULL
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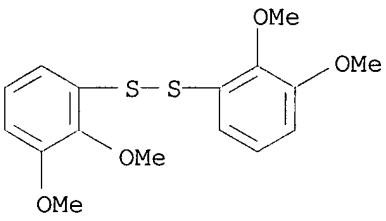


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               3 REFERENCES IN FILE CA (1967 TO DATE)
               3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE   1:  132:30812

REFERENCE   2:  125:184901

REFERENCE   3:  125:76341

L90  ANSWER 2 OF 53  REGISTRY  COPYRIGHT 2001 ACS
RN   144114-21-6  REGISTRY
CN   Retropepsin (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Avian leukosis virus proteinase
CN   E.C. 3.4.23.16
CN   FIV proteinase
CN   Gag Protease
CN   HIV aspartyl protease
CN   HIV protease
CN   HIV proteinase
CN   HIV-1 aspartyl protease
CN   HIV-1 aspartyl proteinase
CN   HIV-1 protease
CN   HIV-1 proteinase
CN   HIV-1 virus aspartyl proteinase
CN   HIV-1 virus protease
```

Point of Contact:
Jan Delaval
Librarian-Physical Sciences
CM1 1E01 Tel: 308-4498

CN HIV-2 protease
CN HTLV proteinase
CN HTLV-1 proteinase
CN Human immunodeficiency virus protease
CN Moloney murine leukemia virus protease
CN Retroproteinase
CN Rous sarcoma virus protease
CN RSV proteinase
CN Simian immunodeficiency virus aspartyl proteinase
MF Unspecified
CI COM, MAN
SR CA
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CIN, PROMT, TOXLIT, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1901 REFERENCES IN FILE CA (1967 TO DATE)
79 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1904 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 135:174687

REFERENCE 2: 135:174599

REFERENCE 3: 135:174520

REFERENCE 4: 135:174470

REFERENCE 5: 135:162484

REFERENCE 6: 135:162089

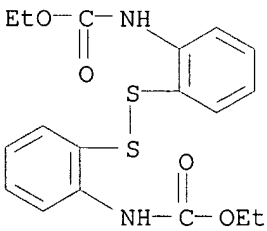
REFERENCE 7: 135:162079

REFERENCE 8: 135:162074

REFERENCE 9: 135:161987

REFERENCE 10: 135:149594

L90 ANSWER 3 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **72687-29-7** REGISTRY
CN Carbamic acid, (dithiodi-2,1-phenylene)bis-, diethyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C18 H20 N2 O4 S2
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



4 REFERENCES IN FILE CA (1967 TO DATE)
4 REFERENCES IN FILE CAPLUS (1967 TO DATE)

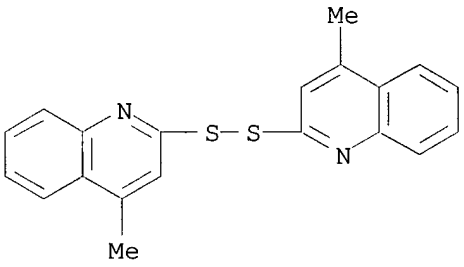
REFERENCE 1: 132:30812

REFERENCE 2: 125:76341

REFERENCE 3: 107:134255

REFERENCE 4: 92:76429

L90 ANSWER 4 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **66546-28-9** REGISTRY
CN Quinoline, 2,2'-dithiobis[4-methyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Lepidine, 2,2'-dithiodi- (6CI)
FS 3D CONCORD
MF C20 H16 N2 S2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



5 REFERENCES IN FILE CA (1967 TO DATE)
5 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:209141

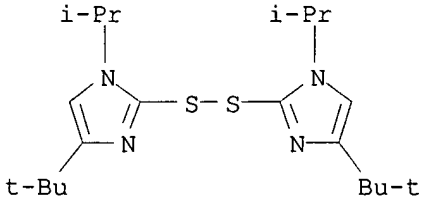
REFERENCE 2: 134:110110

REFERENCE 3: 132:30812

REFERENCE 4: 125:76341

REFERENCE 5: 88:190565

L90 ANSWER 5 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **61747-35-1** REGISTRY
CN 1H-Imidazole, 2,2'-dithiobis[4-(1,1-dimethylethyl)-1-(1-methylethyl)-
(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2,2'-Dithiobis(4-tert-butyl-1-isopropylimidazole)
FS 3D CONCORD
MF C20 H34 N4 S2
CI COM
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX,
CHEMLIST, MSDS-OHS, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



14 REFERENCES IN FILE CA (1967 TO DATE)
14 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 135:46638

REFERENCE 2: 134:110110

REFERENCE 3: 133:90223

REFERENCE 4: 132:30812

REFERENCE 5: 129:12327

REFERENCE 6: 125:76341

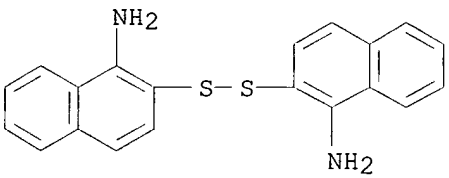
REFERENCE 7: 116:230222

REFERENCE 8: 116:55101

REFERENCE 9: 114:237652

REFERENCE 10: 113:97273

L90 ANSWER 6 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **38262-57-6** REGISTRY
CN 1-Naphthalenamine, 2,2'-dithiobis- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2,2'-Dithiobis(1-aminonaphthalene)
FS 3D CONCORD
MF C20 H16 N2 S2
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAPLUS, CHEMCATS, CSCHEM, MSDS-OHS, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



13 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
13 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:30812

REFERENCE 2: 132:18252

REFERENCE 3: 125:76341

REFERENCE 4: 102:132013

REFERENCE 5: 101:125477

REFERENCE 6: 95:56899

REFERENCE 7: 93:90750

REFERENCE 8: 92:214435

REFERENCE 9: 92:190816

REFERENCE 10: 92:123836

L90 ANSWER 7 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **37205-61-1** REGISTRY
CN Proteinase inhibitor (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Antiproteinase
CN Fu Gu Tai
CN Protease inhibitor
DR 139074-30-9, 144716-05-2, 144132-75-2
MF Unspecified
CI MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CEN, CIN, EMBASE, IFICDB, IFIPAT, IFIUDB, PROMT, TOXLINE, TOXLIT, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
4465 REFERENCES IN FILE CA (1967 TO DATE)
87 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4473 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 135:174712

REFERENCE 2: 135:174705

REFERENCE 3: 135:174649

REFERENCE 4: 135:165873

REFERENCE 5: 135:163380

REFERENCE 6: 135:163198

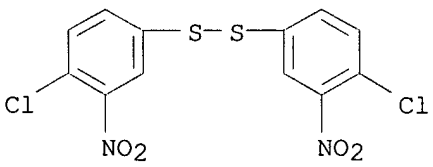
REFERENCE 7: 135:162650

REFERENCE 8: 135:162103

REFERENCE 9: 135:161850

REFERENCE 10: 135:161519

L90 ANSWER 8 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **35964-48-8** REGISTRY
CN Disulfide, bis(4-chloro-3-nitrophenyl) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN NSC 677442
FS 3D CONCORD
MF C12 H6 Cl2 N2 O4 S2
LC STN Files: BEILSTEIN*, CA, CAPLUS, CHEMCATS, CHEMLIST, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



6 REFERENCES IN FILE CA (1967 TO DATE)
6 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:30812

REFERENCE 2: 126:225244

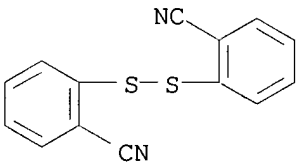
REFERENCE 3: 125:184901

REFERENCE 4: 125:76341

REFERENCE 5: 78:111007

REFERENCE 6: 76:112309

L90 ANSWER 9 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **33174-74-2** REGISTRY
CN Benzonitrile, 2,2'-dithiobis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzonitrile, 2,2'-dithiodi- (8CI)
OTHER NAMES:
CN 2,2'-Dicyanodiphenyl disulfide
CN Bis(2-cyanophenyl) disulfide
CN NSC 677458
FS 3D CONCORD
MF C14 H8 N2 S2
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, SYNTHLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



26 REFERENCES IN FILE CA (1967 TO DATE)
27 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:293417

REFERENCE 2: 132:30812

REFERENCE 3: 131:144613

REFERENCE 4: 130:311765

REFERENCE 5: 129:41107

REFERENCE 6: 128:127653

REFERENCE 7: 127:332692

REFERENCE 8: 127:293160

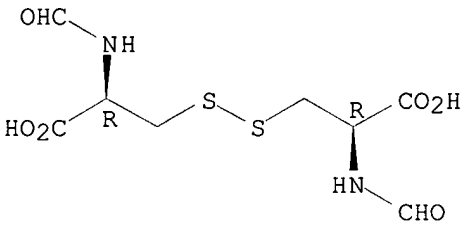
REFERENCE 9: 127:248126

REFERENCE 10: 127:34250

L90 ANSWER 10 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **29581-98-4** REGISTRY
CN L-Cystine, N,N'-diformyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cystine, N,N'-diformyl- (6CI)
CN Cystine, N,N'-diformyl-, L- (8CI)
OTHER NAMES:
CN N,N'-Diformyl-L-cystine
FS STEREOSEARCH

DR 816-91-1
MF C8 H12 N2 O6 S2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, NIOSHTIC, RTECS*, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



8 REFERENCES IN FILE CA (1967 TO DATE)
8 REFERENCES IN FILE CAPLUS (1967 TO DATE)
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 132:30812

REFERENCE 2: 125:76341

REFERENCE 3: 118:120258

REFERENCE 4: 116:174712

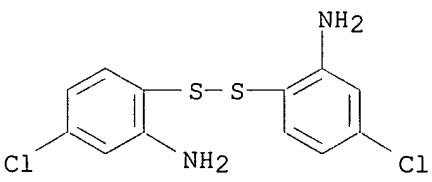
REFERENCE 5: 109:149866

REFERENCE 6: 78:58

REFERENCE 7: 77:114857

REFERENCE 8: 73:54325

L90 ANSWER 11 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **29124-55-8** REGISTRY
CN Benzenamine, 2,2'-dithiobis[5-chloro- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aniline, 2,2'-dithiobis[5-chloro- (7CI, 8CI)
OTHER NAMES:
CN 2,2'-Diamino-4,4'-dichlorodiphenyl disulfide
CN NSC 677447
FS 3D CONCORD
MF C12 H10 Cl2 N2 S2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, IFICDB, IFIPAT, IFIUDB, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



16 REFERENCES IN FILE CA (1967 TO DATE)
16 REFERENCES IN FILE CAPLUS (1967 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 132:30812

REFERENCE 2: 125:184901

REFERENCE 3: 125:76341

REFERENCE 4: 101:55079

REFERENCE 5: 99:87826

REFERENCE 6: 92:128024

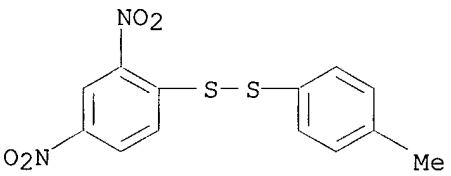
REFERENCE 7: 92:6226

REFERENCE 8: 91:157777

REFERENCE 9: 91:5255

REFERENCE 10: 87:53055

L90 ANSWER 12 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **24696-61-5** REGISTRY
CN Disulfide, 2,4-dinitrophenyl 4-methylphenyl (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Disulfide, 2,4-dinitrophenyl p-tolyl (6CI, 7CI, 8CI)
OTHER NAMES:
CN 2,4-Dinitro-4'-methyldiphenyl disulfide
CN 2,4-Dinitrophenyl p-tolyl disulfide
FS 3D CONCORD
MF C13 H10 N2 O4 S2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



11 REFERENCES IN FILE CA (1967 TO DATE)
11 REFERENCES IN FILE CAPLUS (1967 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:11677

REFERENCE 2: 132:30812

REFERENCE 3: 131:184867

REFERENCE 4: 125:76341

REFERENCE 5: 105:60256

REFERENCE 6: 100:173968

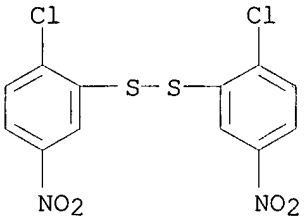
REFERENCE 7: 97:162494

REFERENCE 8: 87:22643

REFERENCE 9: 80:59114

REFERENCE 10: 79:115715

L90 ANSWER 13 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **20201-05-2** REGISTRY
CN Disulfide, bis(2-chloro-5-nitrophenyl) (6CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis(2-chloro-5-nitrophenyl) disulfide
FS 3D CONCORD
MF C12 H6 Cl2 N2 O4 S2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



6 REFERENCES IN FILE CA (1967 TO DATE)
6 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 132:30812

REFERENCE 2: 132:3248

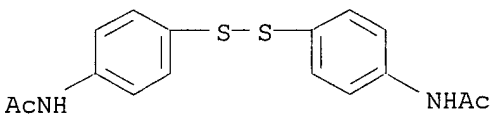
REFERENCE 3: 125:76341

REFERENCE 4: 100:174748

REFERENCE 5: 76:112309

REFERENCE 6: 68:104454

L90 ANSWER 14 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **16766-09-9** REGISTRY
CN Acetamide, N,N'-(dithiodi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acetanilide, 4',4'''-dithiobis- (8CI)
OTHER NAMES:
CN Bis(4-acetamidophenyl) disulfide
CN Bis(4-acetylaminophenyl) disulfide
FS 3D CONCORD
MF C16 H16 N2 O2 S2
CI COM
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, IFICDB, IFIPAT, IFIUDB, SPECINFO, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



41 REFERENCES IN FILE CA (1967 TO DATE)
41 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:35008

REFERENCE 2: 132:87659

REFERENCE 3: 132:30812

REFERENCE 4: 131:191285

REFERENCE 5: 130:189205

REFERENCE 6: 130:59012

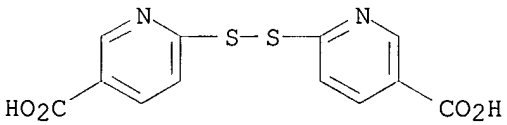
REFERENCE 7: 128:294743

REFERENCE 8: 128:250629

REFERENCE 9: 128:186461

REFERENCE 10: 128:69934

L90 ANSWER 15 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **15658-35-2** REGISTRY
CN 3-Pyridinecarboxylic acid, 6,6'-dithiobis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Nicotinic acid, 6,6'-dithiodi- (8CI)
OTHER NAMES:
CN 6,6'-Dithiodinicotinic acid
CN 6,6'-Dithionicotinic acid
CN Carboxypyridine disulfide
CN CPDS
FS 3D CONCORD
MF C12 H8 N2 O4 S2
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, MEDLINE, PHAR, RTECS*, SYNTHLINE, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



125 REFERENCES IN FILE CA (1967 TO DATE)
5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
125 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:245193

REFERENCE 2: 134:110110

REFERENCE 3: 134:39177

REFERENCE 4: 133:288786

REFERENCE 5: 133:90223

REFERENCE 6: 133:65901

REFERENCE 7: 132:229558

REFERENCE 8: 132:217134

REFERENCE 9: 132:108139

REFERENCE 10: 132:89832

L90 ANSWER 16 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **15158-11-9** REGISTRY
CN Copper, ion (Cu2+) (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Copper divalent ion
CN Copper ion(2+)
CN Copper(2+)
CN Copper(2+) ion
CN Copper(II)
CN Copper(II) cation
CN Copper(II) ion
CN Cu2+
CN Cupric cation
CN Cupric ion
CN Cupric ion (Cu2+)
DR 12265-72-4, 16397-90-3
MF Cu
CI COM
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CEN, CIN, DDFU, DETHERM*, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, NIOSHTIC, PIRA, PROMT, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)

Cu^{2+}

7769 REFERENCES IN FILE CA (1967 TO DATE)
523 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
7783 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 135:186767

REFERENCE 2: 135:186144

REFERENCE 3: 135:186086

REFERENCE 4: 135:184812

REFERENCE 5: 135:184174

REFERENCE 6: 135:180505

REFERENCE 7: 135:180459

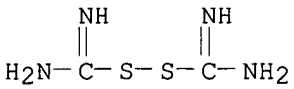
REFERENCE 8: 135:179836

REFERENCE 9: 135:177470

REFERENCE 10: 135:176976

L90 ANSWER 17 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **14807-75-1** REGISTRY
CN Thioperoxydicarbonimidic diamide ([(H2N)C(NH)]2S2), dihydrochloride (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Formamidine, 1,1'-dithiodi-, dihydrochloride (7CI, 8CI)
OTHER NAMES:
CN 1,1'-Dithiodiformamidine hydrochloride
CN Diformamidine disulfide dihydrochloride

CN Dithioformamidine dihydrochloride
CN Formamidine disulfide dihydrochloride
MF C2 H6 N4 S2 . 2 Cl H
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, GMELIN*, RTECS*, SPECINFO, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
CRN (3256-06-2)



●2 HCl

30 REFERENCES IN FILE CA (1967 TO DATE)
30 REFERENCES IN FILE CAPLUS (1967 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:129593

REFERENCE 2: 135:76571

REFERENCE 3: 132:30812

REFERENCE 4: 132:27713

REFERENCE 5: 125:76341

REFERENCE 6: 124:307619

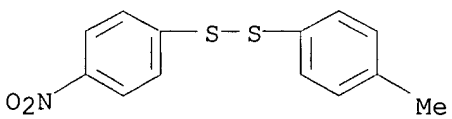
REFERENCE 7: 124:260207

REFERENCE 8: 110:94495

REFERENCE 9: 109:92107

REFERENCE 10: 99:202698

L90 ANSWER 18 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **14756-51-5** REGISTRY
CN Disulfide, 4-methylphenyl 4-nitrophenyl (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Disulfide, p-nitrophenyl p-tolyl (7CI, 8CI)
OTHER NAMES:
CN p-Nitrophenyl p-tolyl disulfide
FS 3D CONCORD
MF C13 H11 N O2 S2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



12 REFERENCES IN FILE CA (1967 TO DATE)
12 REFERENCES IN FILE CAPLUS (1967 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 132:30812

REFERENCE 2: 130:273973

REFERENCE 3: 125:57694

REFERENCE 4: 123:338868

REFERENCE 5: 109:109942

REFERENCE 6: 106:17996

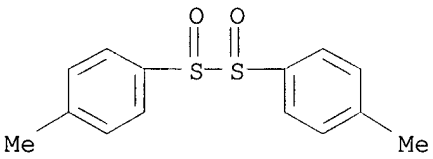
REFERENCE 7: 101:130324

REFERENCE 8: 88:49876

REFERENCE 9: 88:37113

REFERENCE 10: 87:22643

L90 ANSWER 19 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **14370-67-3** REGISTRY
CN Disulfoxide, bis(4-methylphenyl) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN p-Tolyl disulfoxide (6CI, 7CI, 8CI)
OTHER NAMES:
CN NSC 677464
FS 3D CONCORD
MF C14 H14 O2 S2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



8 REFERENCES IN FILE CA (1967 TO DATE)
8 REFERENCES IN FILE CAPLUS (1967 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 132:347661

REFERENCE 2: 132:30812

REFERENCE 3: 130:52010

REFERENCE 4: 125:247552

REFERENCE 5: 125:184901

REFERENCE 6: 125:76341

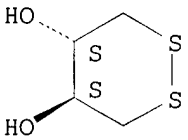
REFERENCE 7: 81:25294

REFERENCE 8: 66:75789

L90 ANSWER 20 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **14193-38-5** REGISTRY
CN 1,2-Dithiane-4,5-diol, (4R,5R)-rel- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:
CN 1,2-Dithiane-4,5-diol, trans-
CN o-Dithiane-4,5-diol, trans- (7CI, 8CI)
OTHER NAMES:
CN (.+-.)-trans-1,2-Dithiane-4,5-diol
CN NSC 663605
CN trans-1,2-Dithiane-4,5-diol
CN trans-4,5-Dihydroxy-1,2-dithiane
CN trans-4,5-Dihydroxy-o-dithiane
FS STEREOSEARCH
DR 24891-61-0, 17307-14-1, 86023-22-5
MF C4 H8 O2 S2
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

Relative stereochemistry.



72 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
72 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 135:180822

REFERENCE 2: 134:110110

REFERENCE 3: 133:147907

REFERENCE 4: 132:105145

REFERENCE 5: 132:30812

REFERENCE 6: 131:139819

REFERENCE 7: 130:167984

REFERENCE 8: 130:85910

REFERENCE 9: 130:81339

REFERENCE 10: 129:275693

L90 ANSWER 21 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **13982-39-3** REGISTRY
CN Zinc, isotope of mass 65 (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 65Zn
CN Zinc-65
CN Zn 65
MF Zn
CI COM
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CIN, CSNB, EMBASE, IFICDB, IFIPAT, IFIUDB, NIOSHTIC, TOXLINE, TOXLIT, USPATFULL

^{65}Zn

2025 REFERENCES IN FILE CA (1967 TO DATE)
18 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2027 REFERENCES IN FILE CAPLUS (1967 TO DATE)
42 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:171510

REFERENCE 2: 135:158405

REFERENCE 3: 135:157231

REFERENCE 4: 135:126752

REFERENCE 5: 135:121780

REFERENCE 6: 135:113313

REFERENCE 7: 135:73377

REFERENCE 8: 135:26064

REFERENCE 9: 135:4973

REFERENCE 10: 135:4092

L90 ANSWER 22 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **10102-43-9** REGISTRY
CN Nitrogen oxide (NO) (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Amidogen, oxo-
CN INOmax
CN Nitric oxide
CN Nitric oxide (NO)
CN Nitric oxide trimer
CN Nitrogen monooxide
CN Nitrogen monoxide
CN Nitrogen oxide (N4O4)
CN Nitrogen(II) oxide
CN Nitrosyl radical
CN OHM 11771
DR 53851-19-7, 51005-20-0, 51005-21-1, 90452-29-2
MF N O
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, DRUGUPDATES, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, TRCTHERMO*, TULSA, ULIDAT, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

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59861 REFERENCES IN FILE CA (1967 TO DATE)
385 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
59954 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 135:189462

REFERENCE 2: 135:189381

REFERENCE 3: 135:188856

REFERENCE 4: 135:188841

REFERENCE 5: 135:187883

REFERENCE 6: 135:187282

REFERENCE 7: 135:187094

REFERENCE 8: 135:186744

REFERENCE 9: 135:185271

REFERENCE 10: 135:184757

L90 ANSWER 23 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **9068-38-6** REGISTRY
CN Nucleotidyltransferase, deoxyribonucleate, RNA-dependent (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Reverse transcriptase
CN Revertase
CN RNA revertase
CN RNA-dependent deoxyribonucleate nucleotidyltransferase
CN RNA-dependent DNA polymerase
CN RNA-directed DNA polymerase
CN RNA-instructed DNA polymerase
CN SuperScript
CN SuperScript II
CN ThermoScript
CN ThermoScript II
MF Unspecified
CI MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, NAPRALERT, PIRA, PROMT, TOXLINE, TOXLIT, USPATFULL
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
6242 REFERENCES IN FILE CA (1967 TO DATE)
71 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
6253 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 135:177888

REFERENCE 2: 135:177230

REFERENCE 3: 135:177228

REFERENCE 4: 135:176420

REFERENCE 5: 135:176411

REFERENCE 6: 135:176405

REFERENCE 7: 135:176275

REFERENCE 8: 135:175349

REFERENCE 9: 135:174746

REFERENCE 10: 135:174712

L90 ANSWER 24 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **7440-66-6** REGISTRY
CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN AN 325
CN Asarco L 15
CN Blue powder
CN Ecka 4
CN F 1000
CN F 1000 (metal)
CN F 1500T
CN F 2000
CN F 2000 (metal)
CN LS 2
CN LS 2 (element)
CN LS 4
CN LS 5
CN LS 5 (metal)
CN NC-Zinc
CN Rheinzink
CN UF
CN UF (metal)
CN VM 4P16
CN Zinc Dust 3
DR 12793-53-2, 195161-85-4, 199281-21-5, 298688-49-0
MF Zn
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSDIRECTORY, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PHARMASEARCH, PIRA, PROMT, RTECS*, TOXLINE, TOXLIT, TULSA, ULIDAT, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Zn

201222 REFERENCES IN FILE CA (1967 TO DATE)
10715 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
201365 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:189434

REFERENCE 2: 135:189368

REFERENCE 3: 135:189361

REFERENCE 4: 135:189342

REFERENCE 5: 135:189339

REFERENCE 6: 135:189288

REFERENCE 7: 135:189192

REFERENCE 8: 135:189189

REFERENCE 9: 135:188987

REFERENCE 10: 135:188904

L90 ANSWER 25 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **7440-50-8** REGISTRY
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 100RXH
CN 1100T
CN 115A
CN 1721 Gold
CN 200RL
CN 22BB400
CN 3EC
CN 3EC-HTE
CN 3EC-III
CN 3EC-VLP
CN 3EC3
CN 3L Fire
CN Allbri Natural Copper
CN Arwood copper
CN BHN 02T
CN BHY 02B-T
CN BHY 13T
CN BHY 22B-T
CN BSH
CN BSH (metal)
CN C 100
CN C 100 (metal)
CN C.I. 77400
CN C.I. Pigment Metal 2
CN CDX
CN CDX (metal)
CN CE 1100
CN CE 1110
CN CE 115
CN CE 15
CN CE 25
CN CE 7
CN CE 7 (metal)
CN CE 8A
CN CF 78
CN CF-T 8
CN Copper element
CN Copper fulleride (CuC20)
CN Copper Powder
CN CS-F 150E
CN CT 315E
CN Cu-At-W-250
CN CU-FN 10
CN CuEP
CN CuEPP
CN CuLox 6010
CN CuLox 6030
CN DN 02
CN DP 3
CN DP 3 (metal)
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 133353-46-5, 133353-47-6, 65555-90-0, 72514-83-1, 195161-80-9
MF Cu
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,

CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*, TOXLINE, TOXLIT, TULSA, ULIDAT, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Cu

345771 REFERENCES IN FILE CA (1967 TO DATE)
19798 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
346058 REFERENCES IN FILE CAPLUS (1967 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:189434

REFERENCE 2: 135:189408

REFERENCE 3: 135:189402

REFERENCE 4: 135:189376

REFERENCE 5: 135:189373

REFERENCE 6: 135:189367

REFERENCE 7: 135:189357

REFERENCE 8: 135:189342

REFERENCE 9: 135:189339

REFERENCE 10: 135:189288

L90 ANSWER 26 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **7439-89-6** REGISTRY
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 300A
CN 3ZhP
CN A 227
CN Ancor B
CN Ancor EN 80/150
CN Armco iron
CN Atomel 300M200
CN Atomel 500M
CN Atomet 28
CN Atomiron 44MR
CN Atomiron 5M
CN Atomiron AFP 25
CN Atomiron AFP 5
CN ATW 230
CN ATW 432
CN Carbonyl iron
CN CM (iron)
CN Copy Powder CS 105-175
CN DH
CN Diseases (animal), iron overload
CN Diseases, iron overload
CN DSP 128B
CN DSP 135

CN DSP 135C
CN DSP 138
CN EF 1000
CN EF 250
CN EFV
CN EFV 200/300
CN EFV 250
CN EFV 250/400
CN EO 5A
CN F 60
CN F 60 (metal)
CN Ferrovac E
CN FT 3
CN FT 3 (element)
CN GS 6
CN HF 2
CN HF 2 (element)
CN HL (iron)
CN Hoeganaes ATW 230
CN Hoeganaes EH
CN HS (iron)
CN HS 4849
CN Iron element
CN Iron fulleride (FeC20)
CN ISP 3700
CN ISP-CIP-R 1470
CN KG 200
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 8011-79-8, 8053-60-9, 129048-51-7, 73135-38-3, 70884-35-4, 39344-71-3, 195161-83-2, 199281-22-6
MF Fe
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSDIRECTORY, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PHARMASEARCH, PIRA, PROMT, RTECS*, TOXLINE, TOXLIT, TULSA, ULIDAT, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Fe

275794 REFERENCES IN FILE CA (1967 TO DATE)
16846 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
275987 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:189434

REFERENCE 2: 135:189379

REFERENCE 3: 135:189375

REFERENCE 4: 135:189369

REFERENCE 5: 135:189368

REFERENCE 6: 135:189359

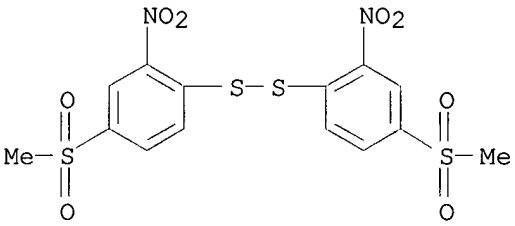
REFERENCE 7: 135:189357

REFERENCE 8: 135:189342

REFERENCE 9: 135:189340

REFERENCE 10: 135:189339

L90 ANSWER 27 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **7038-49-5** REGISTRY
CN Disulfide, bis[4-(methylsulfonyl)-2-nitrophenyl] (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN NSC 677463
FS 3D CONCORD
MF C14 H12 N2 O8 S4
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



4 REFERENCES IN FILE CA (1967 TO DATE)
4 REFERENCES IN FILE CAPLUS (1967 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

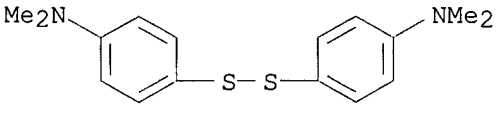
REFERENCE 1: 132:30812

REFERENCE 2: 125:184901

REFERENCE 3: 76:99646

REFERENCE 4: 71:49957

L90 ANSWER 28 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **5397-29-5** REGISTRY
CN Benzenamine, 4,4'-dithiobis[N,N-dimethyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aniline, 4,4'-dithiobis[N,N-dimethyl- (6CI, 7CI, 8CI)
OTHER NAMES:
CN Bis[4-(dimethylamino)phenyl] disulfide
CN Bis[p-(dimethylamino)phenyl] disulfide
CN Di-p-dimethylaminophenyl disulfide
FS 3D CONCORD
MF C16 H20 N2 S2
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, IFICDB, IFIPAT, IFIUDB, RTECS*, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



37 REFERENCES IN FILE CA (1967 TO DATE)
37 REFERENCES IN FILE CAPLUS (1967 TO DATE)

4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:280435

REFERENCE 2: 133:50111

REFERENCE 3: 132:30812

REFERENCE 4: 130:239851

REFERENCE 5: 125:76341

REFERENCE 6: 125:58018

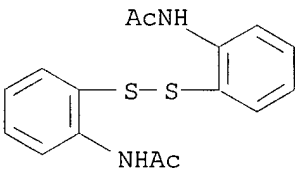
REFERENCE 7: 124:55068

REFERENCE 8: 118:68963

REFERENCE 9: 118:29127

REFERENCE 10: 117:221902

L90 ANSWER 29 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **4490-97-5** REGISTRY
CN Acetamide, N,N'-(dithiodi-2,1-phenylene)bis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acetanilide, 2',2'''-dithiobis- (7CI, 8CI)
OTHER NAMES:
CN Bis(2-acetamidophenyl) disulfide
CN Bis(2-acetylaminophenyl) disulfide
FS 3D CONCORD
MF C16 H16 N2 O2 S2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, IFICDB, IFIPAT, IFIUDB, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



23 REFERENCES IN FILE CA (1967 TO DATE)
23 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:321682

REFERENCE 2: 133:232370

REFERENCE 3: 132:30812

REFERENCE 4: 129:175448

REFERENCE 5: 128:69934

REFERENCE 6: 127:154564

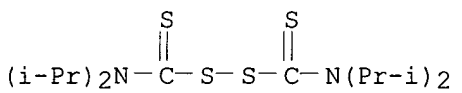
REFERENCE 7: 126:205418

REFERENCE 8: 125:315100

REFERENCE 9: 125:76341

REFERENCE 10: 124:248617

L90 ANSWER 30 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **4136-91-8** REGISTRY
CN Thioperoxydicarbonic diamide ([(H2N)C(S)]2S2), tetrakis(1-methylethyl)-(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Disulfide, bis(diisopropylthiocarbamoyl) (6CI, 7CI, 8CI)
OTHER NAMES:
CN N,N,N',N'-Tetraisopropylthiuram disulfide
CN Tetraisopropylthiuram disulfide
FS 3D CONCORD
MF C14 H28 N2 S4
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHEM, GMELIN*, SPECINFO, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



57 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
57 REFERENCES IN FILE CAPLUS (1967 TO DATE)
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:222836

REFERENCE 2: 134:24820

REFERENCE 3: 132:302454

REFERENCE 4: 132:166336

REFERENCE 5: 132:30812

REFERENCE 6: 131:234746

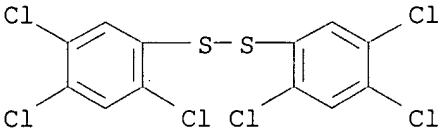
REFERENCE 7: 129:12327

REFERENCE 8: 127:81733

REFERENCE 9: 126:206782

REFERENCE 10: 126:117561

L90 ANSWER 31 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **3808-87-5** REGISTRY
CN Disulfide, bis(2,4,5-trichlorophenyl) (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis(2,4,5-trichlorophenyl) disulfide
CN NSC 238936
FS 3D CONCORD
MF C12 H4 Cl6 S2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, HODOC*, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



32 REFERENCES IN FILE CA (1967 TO DATE)
32 REFERENCES IN FILE CAPLUS (1967 TO DATE)
9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:237657

REFERENCE 2: 134:17469

REFERENCE 3: 132:293840

REFERENCE 4: 132:30812

REFERENCE 5: 131:310538

REFERENCE 6: 131:195525

REFERENCE 7: 131:6450

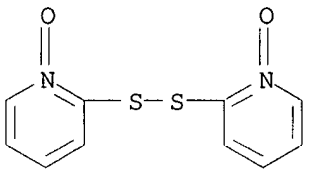
REFERENCE 8: 127:289795

REFERENCE 9: 126:174104

REFERENCE 10: 126:90238

L90 ANSWER 32 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **3696-28-4** REGISTRY
CN Pyridine, 2,2'-dithiobis-, 1,1'-dioxide (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Pyridine, 2,2'-dithiodi-, 1,1'-dioxide (6CI, 7CI, 8CI)
OTHER NAMES:
CN (1-Oxo-2-pyridyl) disulfide
CN 2,2'-Dipyridyl disulfide bis-N-oxide
CN 2,2'-Dipyridyl disulfide N,N'-bisoxide
CN 2,2'-Dithiobis(pyridine 1-oxide)
CN 2,2'-Dithiobis(pyridine N-oxide)
CN 2,2'-Dithiobispyridine 1,1'-dioxide
CN 2,2'-Dithiodipyridine 1,1'-dioxide
CN Bis(2-pyridine-N-oxide)disulfide
CN Bis(2-pyridyl 1-oxide) disulfide
CN Bis(2-pyridyl) disulfide di-N-oxide
CN Bis(2-pyridyl-N-oxide) disulfide
CN Bis(N-oxido-2-pyridyl) disulfide
CN Di-2-pyridyl disulfide N,N'-dioxide
CN Dipyrithione
CN NSC 677437
CN Omadine disulfide
CN Omadine DS
CN OSY 20
FS 3D CONCORD
DR 90829-79-1
MF C10 H8 N2 O2 S2
CI COM
LC STN Files: BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, RTECS*, SPECINFO, TOXLINE, TOXLIT, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**, WHO

(**Enter CHEMLIST File for up-to-date regulatory information)



208 REFERENCES IN FILE CA (1967 TO DATE)
16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
208 REFERENCES IN FILE CAPLUS (1967 TO DATE)
24 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:146240

REFERENCE 2: 135:124156

REFERENCE 3: 135:114410

REFERENCE 4: 135:66024

REFERENCE 5: 135:45919

REFERENCE 6: 135:30287

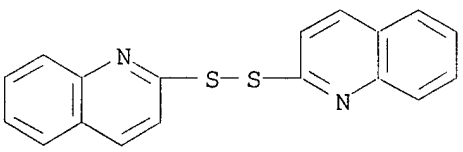
REFERENCE 7: 135:12029

REFERENCE 8: 134:354521

REFERENCE 9: 134:341599

REFERENCE 10: 134:341581

L90 ANSWER 33 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **2889-13-6** REGISTRY
CN Quinoline, 2,2'-dithiobis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Quinoline, 2,2'-dithiodi- (6CI, 7CI, 8CI)
OTHER NAMES:
CN 2,2'-Dithiodiquinoline
CN NSC 677473
FS 3D CONCORD
DR 137376-18-2
MF C18 H12 N2 S2
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMINFORMRX, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



18 REFERENCES IN FILE CA (1967 TO DATE)
18 REFERENCES IN FILE CAPLUS (1967 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 132:30812

REFERENCE 2: 127:359105

REFERENCE 3: 127:50552

REFERENCE 4: 126:171184

REFERENCE 5: 126:8006

REFERENCE 6: 125:266044

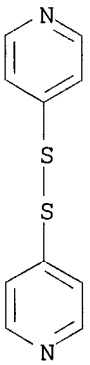
REFERENCE 7: 125:221031

REFERENCE 8: 125:184901

REFERENCE 9: 125:76341

REFERENCE 10: 119:197869

L90 ANSWER 34 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **2645-22-9** REGISTRY
CN Pyridine, 4,4'-dithiobis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Pyridine, 4,4'-dithiodi- (6CI, 7CI, 8CI)
OTHER NAMES:
CN 4,4'-Bipyridyl disulfide
CN 4,4'-Dipyridine disulfide
CN 4,4'-Dipyridyl disulfide
CN 4,4'-Dithiobispyridine
CN 4,4'-Dithiodipyridine
CN 4,4'-Dithiopyridine
CN 4-Pyridyl disulfide
CN Aldrithiol 4
CN Bis(4-pyridinyl) disulfide
CN Bis(4-pyridyl) disulfide
CN Di(4-Pyridyl) disulfide
FS 3D CONCORD
MF C10 H8 N2 S2
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, MEDLINE, SPECINFO, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



263 REFERENCES IN FILE CA (1967 TO DATE)
8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
263 REFERENCES IN FILE CAPLUS (1967 TO DATE)

4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:152660

REFERENCE 2: 135:147458

REFERENCE 3: 135:52718

REFERENCE 4: 135:30479

REFERENCE 5: 135:28279

REFERENCE 6: 134:280956

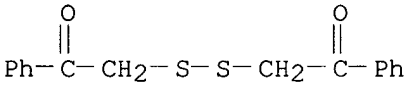
REFERENCE 7: 134:202271

REFERENCE 8: 134:176199

REFERENCE 9: 134:117266

REFERENCE 10: 134:97084

L90 ANSWER 35 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **2461-75-8** REGISTRY
CN Ethanone, 2,2'-dithiobis[1-phenyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acetophenone, 2,2''-dithiodi- (6CI, 7CI, 8CI)
OTHER NAMES:
CN Diphenacyl disulfide
CN NSC 677471
CN Phenacyl disulfide
FS 3D CONCORD
MF C16 H14 O2 S2
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



15 REFERENCES IN FILE CA (1967 TO DATE)
15 REFERENCES IN FILE CAPLUS (1967 TO DATE)
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 132:30812

REFERENCE 2: 129:289733

REFERENCE 3: 125:184901

REFERENCE 4: 125:76341

REFERENCE 5: 124:145533

REFERENCE 6: 122:160173

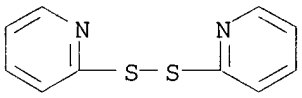
REFERENCE 7: 110:173952

REFERENCE 8: 106:210170

REFERENCE 9: 105:227532

REFERENCE 10: 103:214927

L90 ANSWER 36 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **2127-03-9** REGISTRY
CN Pyridine, 2,2'-dithiobis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Pyridine, 2,2'-dithiodi- (6CI, 7CI, 8CI)
OTHER NAMES:
CN 2,2'-Dipyridinyl disulfide
CN 2,2'-Dipyridyl disulfide
CN 2,2'-Dithiobis(pyridine)
CN 2,2'-Dithiodipyridine
CN 2-Aldrithiol
CN 2-Pyridyl disulfide
CN Aldrithiol 2
CN Bis(2-pyridinyl) disulfide
CN Bis(2-pyridyl) disulfide
CN Di-2-pyridyl disulfide
CN NSC 677438
FS 3D CONCORD
DR 219143-69-8
MF C10 H8 N2 S2
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, NIOSHTIC, PROMT, SPECINFO, SYNTHLINE, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



825 REFERENCES IN FILE CA (1967 TO DATE)
20 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
826 REFERENCES IN FILE CAPLUS (1967 TO DATE)
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:92198

REFERENCE 2: 135:76989

REFERENCE 3: 135:54978

REFERENCE 4: 135:45860

REFERENCE 5: 134:371759

REFERENCE 6: 134:353315

REFERENCE 7: 134:311390

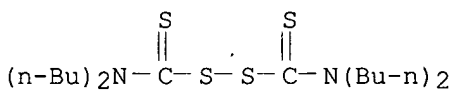
REFERENCE 8: 134:304588

REFERENCE 9: 134:289476

REFERENCE 10: 134:280956

L90 ANSWER 37 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **1634-02-2** REGISTRY

CN Thioperoxydicarbonic diamide ([(H2N)C(S)]2S2), tetrabutyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Disulfide, bis(dibutylthiocarbamoyl) (6CI, 7CI, 8CI)
OTHER NAMES:
CN Bis(dibutylthiocarbamoyl) disulfide
CN Butyl Tuads
CN E-BT 55
CN Methanethioamide, 1,1'-dithiobis[N,N-dibutyl-
CN N,N,N',N'-Tetrabutylthiuram disulfide
CN Nocceler TBT
CN Nocceler TBT-N
CN NSC 677476
CN Robac TBUT
CN Tetrabutylthiuram disulfide
FS 3D CONCORD
MF C18 H36 N2 S4
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, HODOC*, IFICDB, IFIPAT, IFIUDB, RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



185 REFERENCES IN FILE CA (1967 TO DATE)
185 REFERENCES IN FILE CAPLUS (1967 TO DATE)
14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:189326

REFERENCE 2: 135:124156

REFERENCE 3: 135:34410

REFERENCE 4: 134:368167

REFERENCE 5: 134:321746

REFERENCE 6: 134:179795

REFERENCE 7: 134:117016

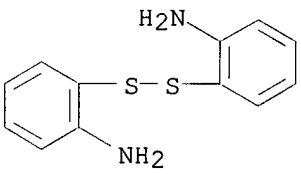
REFERENCE 8: 133:363666

REFERENCE 9: 133:351404

REFERENCE 10: 133:194966

L90 ANSWER 38 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **1141-88-4** REGISTRY
CN Benzenamine, 2,2'-dithiobis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aniline, 2,2'-dithiodi- (6CI, 7CI, 8CI)
OTHER NAMES:
CN 1,1'-Dithiobis(2-aminobenzene)
CN 2,2'-Diaminodiphenyl disulfide
CN 2,2'-Dithiobis[aniline]
CN 2,2'-Dithiobis[benzenamine]
CN 2,2'-Dithiodianiline

CN Bis(2-aminophenyl) disulfide
CN Bis(o-aminophenyl) disulfide
CN Di(2-aminophenyl) disulfide
CN Di(o-aminophenyl) disulfide
CN Disulfide, bis(2-aminophenyl)
CN Intramine
CN NSC 8186
CN o,o'-Diaminodiphenyl disulfide
FS 3D CONCORD
MF C12 H12 N2 S2
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, MEDLINE, NIOSHTIC, RTECS*, SPECINFO, SYNTHLINE, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



281 REFERENCES IN FILE CA (1967 TO DATE)
10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
282 REFERENCES IN FILE CAPLUS (1967 TO DATE)
31 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:129516

REFERENCE 2: 135:114413

REFERENCE 3: 135:99776

REFERENCE 4: 135:70158

REFERENCE 5: 135:54994

REFERENCE 6: 135:53458

REFERENCE 7: 135:52718

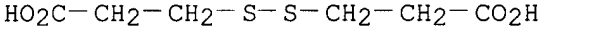
REFERENCE 8: 135:11521

REFERENCE 9: 134:340469

REFERENCE 10: 134:280818

L90 ANSWER 39 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **1119-62-6** REGISTRY
CN Propanoic acid, 3,3'-dithiobis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Propionic acid, 3,3'-dithiodi- (6CI, 7CI, 8CI)
OTHER NAMES:
CN .beta.,.beta.'-Dithiodipropionic acid
CN 2-Carboxyethyl disulfide
CN 3,3'-Dithiodipropanoic acid
CN 3,3'-Dithiodipropionic acid
CN 3,3-Dithiobispropionic acid

CN Bis(2-carboxyethyl)disulfide
CN NSC 677544
FS 3D CONCORD
MF C6 H10 O4 S2
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DETHERM*, HODOC*, IFICDB, IFIPAT, IFIUDB, NIOSHTIC, SPECINFO, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



266 REFERENCES IN FILE CA (1967 TO DATE)
30 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
267 REFERENCES IN FILE CAPLUS (1967 TO DATE)
34 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:129593

REFERENCE 2: 135:112040

REFERENCE 3: 135:50891

REFERENCE 4: 135:15183

REFERENCE 5: 135:2531

REFERENCE 6: 135:1928

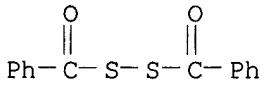
REFERENCE 7: 134:261272

REFERENCE 8: 134:248233

REFERENCE 9: 133:362510

REFERENCE 10: 133:252621

L90 ANSWER 40 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **644-32-6** REGISTRY
CN Disulfide, dibenzoyl (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzoyl disulfide (6CI, 7CI, 8CI)
OTHER NAMES:
CN Bensulfenum
CN Benthiolan
CN Dibenzoyl disulfide
CN NSC 677460
CN Septiolan
CN Thiocutol
FS 3D CONCORD
MF C14 H10 O2 S2
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, DDFU, DRUGU, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



111 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
111 REFERENCES IN FILE CAPLUS (1967 TO DATE)
27 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:24675

REFERENCE 2: 133:89319

REFERENCE 3: 132:87659

REFERENCE 4: 132:30812

REFERENCE 5: 131:222770

REFERENCE 6: 131:136787

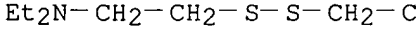
REFERENCE 7: 130:351899

REFERENCE 8: 130:244468

REFERENCE 9: 128:294562

REFERENCE 10: 128:270246

L90 ANSWER 41 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **589-32-2** REGISTRY
CN Ethanamine, 2,2'-dithiobis[N,N-diethyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Triethylamine, 2,2'''-dithiobis- (6CI, 7CI, 8CI)
OTHER NAMES:
CN 2,2'''-Dithiobistriethylamine
CN 6,7-Dithia-3,10-diazadodecane, 3,10-diethyl-
CN N,N,N',N'-Tetraethylcystamine
CN Tetraethylcystamine
FS 3D CONCORD
MF C12 H28 N2 S2
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMINFORMRX, IFICDB, IFIPAT, IFIUDB, RTECS*, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)



53 REFERENCES IN FILE CA (1967 TO DATE)
53 REFERENCES IN FILE CAPLUS (1967 TO DATE)
14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:38021

REFERENCE 2: 132:30812

REFERENCE 3: 131:59141

REFERENCE 4: 130:261228

REFERENCE 5: 129:149255

REFERENCE 6: 127:135859

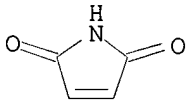
REFERENCE 7: 126:27772

REFERENCE 8: 125:76341

REFERENCE 9: 121:2763

REFERENCE 10: 115:280135

L90 ANSWER 42 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **541-59-3** REGISTRY
CN 1H-Pyrrole-2,5-dione (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Maleimide (6CI, 8CI)
OTHER NAMES:
CN 3-Pyrroline-2,5-dione
CN Maleic imide
CN Pyrrole-2,5-dione
FS 3D CONCORD
MF C4 H3 N O2
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



1500 REFERENCES IN FILE CA (1967 TO DATE)
593 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1503 REFERENCES IN FILE CAPLUS (1967 TO DATE)
33 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:177719

REFERENCE 2: 135:177260

REFERENCE 3: 135:149607

REFERENCE 4: 135:147458

REFERENCE 5: 135:139162

REFERENCE 6: 135:126829

REFERENCE 7: 135:108338

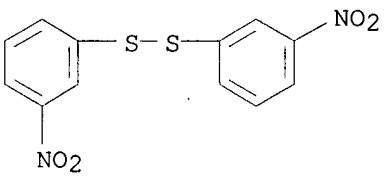
REFERENCE 8: 135:107693

REFERENCE 9: 135:106922

REFERENCE 10: 135:97419

L90 ANSWER 43 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **537-91-7** REGISTRY

CN Disulfide, bis(3-nitrophenyl) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Disulfide, bis(m-nitrophenyl) (7CI, 8CI)
OTHER NAMES:
CN 3,3'-Dinitrodiphenyl disulfide
CN Bis(3-nitrophenyl) disulfide
CN Bis(m-nitrophenyl) disulfide
CN Hinagen
CN m,m'-Dinitrodiphenyl disulfide
CN Megasul
CN Nitrophenide
CN NP
CN NSC 677441
FS 3D CONCORD
DR 8052-96-8
MF C12 H8 N2 O4 S2
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, HODOC*, MEDLINE, MRCK*, MSDS-OHS, SPECINFO, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



84 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
84 REFERENCES IN FILE CAPLUS (1967 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:327877

REFERENCE 2: 133:217305

REFERENCE 3: 133:163930

REFERENCE 4: 132:87659

REFERENCE 5: 132:30812

REFERENCE 6: 132:22753

REFERENCE 7: 131:214038

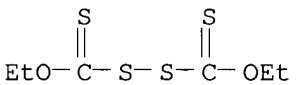
REFERENCE 8: 131:199422

REFERENCE 9: 131:103809

REFERENCE 10: 130:326798

L90 ANSWER 44 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **502-55-6** REGISTRY
CN Thioperoxydicarbonic acid ([(HO)C(S)]2S2), diethyl ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Formic acid, dithiobis[thio-, O,O-diethyl ester (6CI, 8CI)
OTHER NAMES:

CN 3,8-Dioxa-5,6-dithiadecane-4,7-dithione
CN Antigal
CN Auligen
CN Aulin
CN Aulinogen
CN Bexide
CN Bisethylxanthogen
CN Bisethylxanthogen disulfide
CN Diethyl dixanthogen
CN Diethylxanthogen disulfide
CN Dithiobis(thioformic acid) O,O-diethyl ester
CN Dixan
CN Dixanthogen
CN EXD
CN Galasan
CN Herbisan
CN Herbisan 5
CN K Preparation
CN Lenisarin
CN NSC 402561
CN O,O-Diethyl dithiobis[thioformate]
CN Scabicidol
CN Thioperoxydicarbonic acid diethyl ester
CN Xantoscabin
FS 3D CONCORD
MF C6 H10 O2 S4
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IMSDIRECTORY, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PHARMASEARCH, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



295 REFERENCES IN FILE CA (1967 TO DATE)
5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
295 REFERENCES IN FILE CAPLUS (1967 TO DATE)
34 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:202288

REFERENCE 2: 133:344002

REFERENCE 3: 133:284438

REFERENCE 4: 133:269645

REFERENCE 5: 133:269641

REFERENCE 6: 133:180637

REFERENCE 7: 132:95965

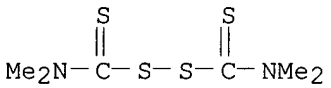
REFERENCE 8: 132:41885

REFERENCE 9: 132:30812

REFERENCE 10: 131:228919

L90 ANSWER 45 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **137-26-8** REGISTRY
CN Thioperoxydicarbonic diamide ([(H2N)C(S)]2S2), tetramethyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Disulfide, bis(dimethylthiocarbamoyl) (8CI)
OTHER NAMES:
CN AApirol
CN Aatiram
CN Accel TMT
CN Accelerant T
CN Accelerator T
CN Accelerator Thiuram
CN Aceto TETD
CN Anles
CN Arasan
CN Arasan 42S
CN Arasan 50 red
CN Arasan 70
CN Arasan 70-S Red
CN Arasan 75
CN Arasan M
CN Arasan-SF
CN Atiram
CN Basultra
CN Betoxin
CN Bis(dimethylthiocarbamoyl) disulfide
CN Bis(dimethylthiocarbamyl) disulfide
CN Cunitex
CN Delsan
CN Ekagom TB
CN Emol
CN Falitiram
CN Ferna-Col
CN Fernasan
CN Fernasan A
CN Fernide
CN Formalsol
CN Hermal
CN Hermat TMT
CN Heryl
CN Hexathir
CN Kregasan
CN Mercuram
CN Methyl Thiram
CN Methyl Tuads
CN Metiur
CN Metiurac
CN N,N,N',N'-Tetramethylthiuram disulfide
CN Nobecutan
CN Nocceler TT
CN Normersan
CN NSC 1771
CN Orac TMTD
CN Panoram 75
CN Perkacit TMTD
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
FS 3D CONCORD
DR 12680-07-8, 12680-62-5, 56645-31-9, 66173-72-6, 93196-73-7, 39456-80-9
MF C6 H12 N2 S4
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU,

DIOGENES, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSDIRECTORY, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PHARMASEARCH, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXLINE, TOXLIT, ULIDAT, USAN, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



5189 REFERENCES IN FILE CA (1967 TO DATE)
85 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5195 REFERENCES IN FILE CAPLUS (1967 TO DATE)
51 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:184742

REFERENCE 2: 135:176722

REFERENCE 3: 135:171005

REFERENCE 4: 135:167857

REFERENCE 5: 135:138546

REFERENCE 6: 135:133426

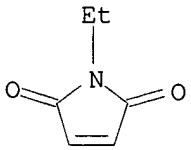
REFERENCE 7: 135:132352

REFERENCE 8: 135:124156

REFERENCE 9: 135:88547

REFERENCE 10: 135:88352

L90 ANSWER 46 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **128-53-0** REGISTRY
CN 1H-Pyrrole-2,5-dione, 1-ethyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Maleimide, N-ethyl- (8CI)
OTHER NAMES:
CN Ethylmaleimide
CN Maleic acid N-ethylimide
CN N-Ethylmaleimide
CN NEM
FS 3D CONCORD
MF C6 H7 N O2
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



2610 REFERENCES IN FILE CA (1967 TO DATE)
27 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2611 REFERENCES IN FILE CAPLUS (1967 TO DATE)
88 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:175357

REFERENCE 2: 135:166212

REFERENCE 3: 135:149695

REFERENCE 4: 135:149607

REFERENCE 5: 135:146978

REFERENCE 6: 135:134426

REFERENCE 7: 135:132412

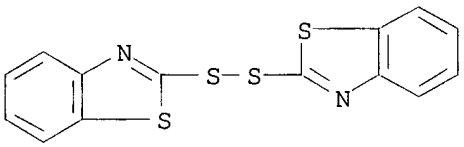
REFERENCE 8: 135:120441

REFERENCE 9: 135:117219

REFERENCE 10: 135:106286

L90 ANSWER 47 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **120-78-5** REGISTRY
CN Benzothiazole, 2,2'-dithiobis- (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2,2'-Benzothiazolyl disulfide
CN 2,2'-Benzothiazyl disulfide
CN 2,2'-Dibenzothiazole disulfide
CN 2,2'-Dibenzothiazolyl disulfide
CN 2,2'-Dithiobis[benzothiazole]
CN 2-Benzothiazolyl disulfide
CN 2-Benzothiazyl disulfide
CN 2-Mercaptobenzothiazole disulfide
CN Accel DM
CN Accel TM
CN Altax
CN Benzothiazole disulfide
CN Benzothiazolyl disulfide
CN Benzothiazyl disulfide
CN Bis(2-benzothiazole) 2,2'-disulfide
CN Bis(2-benzothiazolyl) 2,2'-disulfide
CN Bis(2-benzothiazolyl) disulfide
CN Bis(2-benzothiazyl) disulfide
CN DBTD
CN Di-2-benzothiazolyl disulfide
CN Dibenzothiazolyl disulfide
CN Dibenzothiazyl disulfide
CN Dibenzthiazyl disulfide
CN Ekagom GS
CN MBTS
CN MBTS rubber accelerator
CN Merasulf MBTS
CN Nocceler DM
CN Nocceler DM-PO

CN NSC 677459
CN Perkacit MBTS
CN Pneumax DM
CN Royal MBTS
CN Sanceler DM
CN Soxinol DM
CN Thiofide
CN Thiofide MBTS
CN Vulcafor MBTS
CN Vulkacit DM
CN Vulkacit DM/C
CN Vulkacit DM/MG
CN Vulkafil ZN 96TT11
CN Wobezit DM
FS 3D CONCORD
DR 109767-80-8
MF C14 H8 N2 S4
CI COM
LC STN Files: BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, ULIDAT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



1448 REFERENCES IN FILE CA (1967 TO DATE)
10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1452 REFERENCES IN FILE CAPLUS (1967 TO DATE)
45 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:168913

REFERENCE 2: 135:123620

REFERENCE 3: 135:50891

REFERENCE 4: 135:47468

REFERENCE 5: 135:5283

REFERENCE 6: 134:370839

REFERENCE 7: 134:341509

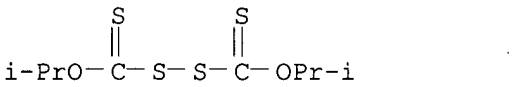
REFERENCE 8: 134:341485

REFERENCE 9: 134:328733

REFERENCE 10: 134:327264

L90 ANSWER 48 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **105-65-7** REGISTRY
CN Thioperoxydicarbonic acid ([(HO)C(S)]2S2), bis(1-methylethyl) ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Formic acid, dithiobis[thio-, O,O-diisopropyl ester (6CI, 8CI)

OTHER NAMES:
CN Bis(2-propyl) dixanthogen
CN Bis(isopropoxythiocarbonyl) disulfide
CN Bis(isopropylxanthogen) disulfide
CN Bis(O-isopropylxanthyl) disulfide
CN Diisopropyl dixanthogen
CN Diisopropyl tetrathioperoxydicarbonate
CN Diisopropyl xanthogenate disulfide
CN Diisopropylxanthogen disulfide
CN Diproxid
CN Diproxide
CN Isopropyl xanthogen disulfide
CN NSC 1339
CN O,O-Diisopropyl dithiobis(thioformate)
FS 3D CONCORD
MF C8 H14 O2 S4
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, HODOC*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



181 REFERENCES IN FILE CA (1967 TO DATE)
5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
181 REFERENCES IN FILE CAPLUS (1967 TO DATE)
31 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:202288

REFERENCE 2: 133:268128

REFERENCE 3: 133:239012

REFERENCE 4: 133:237514

REFERENCE 5: 132:30812

REFERENCE 6: 131:116407

REFERENCE 7: 130:125009

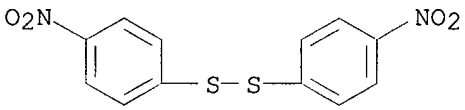
REFERENCE 8: 130:82018

REFERENCE 9: 129:96505

REFERENCE 10: 129:92767

L90 ANSWER 49 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **100-32-3** REGISTRY
CN Disulfide, bis(4-nitrophenyl) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Disulfide, bis(p-nitrophenyl) (7CI, 8CI)
OTHER NAMES:
CN 4,4'-Dinitrodiphenyl disulfide
CN Bis(4-nitrophenyl) disulfide
CN Bis(p-nitrophenyl) disulfide

CN Di(p-nitrophenyl) disulfide
CN Di-4-nitrophenyl disulfide
CN NSC 677446
CN p,p'-Dinitrodiphenyl disulfide
CN p-Nitrophenyl disulfide
FS 3D CONCORD
MF C12 H8 N2 O4 S2
LC STN Files: BEILSTEIN*, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, HODOC*, IFICDB, IFIPAT, IFIUDB, MEDLINE, RTECS*, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



256 REFERENCES IN FILE CA (1967 TO DATE)
256 REFERENCES IN FILE CAPLUS (1967 TO DATE)
17 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:92198

REFERENCE 2: 134:295468

REFERENCE 3: 134:280556

REFERENCE 4: 134:178342

REFERENCE 5: 134:147367

REFERENCE 6: 134:85823

REFERENCE 7: 134:71723

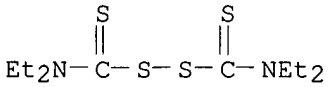
REFERENCE 8: 134:56752

REFERENCE 9: 134:28989

REFERENCE 10: 134:17469

L90 ANSWER 50 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **97-77-8** REGISTRY
CN Thioperoxydicarbonic diamide ([(H2N)C(S)]2S2), tetraethyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Disulfide, bis(diethylthiocarbamoyl) (8CI)
OTHER NAMES:
CN Abstensil
CN Abstinil
CN Abstinyl
CN Accel TET
CN Accel TET-R
CN Alcophobin
CN Antabus
CN Antabuse
CN Antadix
CN Antaethyl
CN Antalcol
CN Antetan
CN Antetil
CN Anticol

CN Antietanol
CN Antietil
CN Antikol
CN Antivitium
CN Aversan
CN Averzan
CN Bis(diethylthiocarbamoyl) disulfide
CN Bis(N,N-diethylthiocarbamoyl) disulfide
CN Contralin
CN Cronetal
CN Dicupral
CN Disulfiram
CN Ekagom DTET
CN Ekagom TEDS
CN Ekagom TETDS
CN Espenal
CN Esperal
CN Etabus
CN Ethyl Thiram
CN Ethyl Thiurad
CN Ethyl Tuads
CN Ethyl Tuex
CN Exhorran
CN Hoca
CN Krotenal
CN N,N,N',N'-Tetraethylthiuram disulfide
CN Nocceler TET
CN Nocceler TET-G
CN Noxal
CN NSC 25953
CN Refusal
CN Sanceler TET
CN Sanceler TET-G
CN Soxinol TET
CN Stopetyl
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
FS 3D CONCORD
DR 11078-22-1, 155-01-1
MF C10 H20 N2 S4
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, DRUGUPDATES, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSDIRECTORY, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PHARMASEARCH, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, USAN, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



2083 REFERENCES IN FILE CA (1967 TO DATE)
41 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2085 REFERENCES IN FILE CAPLUS (1967 TO DATE)
23 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:152555

REFERENCE 2: 135:124156

REFERENCE 3: 135:118195

REFERENCE 4: 135:102568

REFERENCE 5: 135:88494

REFERENCE 6: 135:88161

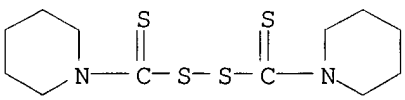
REFERENCE 7: 135:86973

REFERENCE 8: 135:84285

REFERENCE 9: 135:72563

REFERENCE 10: 135:70320

L90 ANSWER 51 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **94-37-1** REGISTRY
CN Piperidine, 1,1'-(dithiodicarbonothioyl)bis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Disulfide, bis(piperidinothiocarbonyl) (6CI, 8CI)
OTHER NAMES:
CN 1-Piperidinethiocarbonyl disulfide
CN Bis(1-piperidylthiocarbonyl) disulfide
CN Bis(pentamethylene)thiuram disulfide
CN Bis(piperidinothiocarbonyl) disulfide
CN Dicyclopentamethylenethiuram disulfide
CN Dipentamethylenethiuram disulfide
CN Disulfide, bis(1-piperidinylthioxomethyl)
CN N,N'-Pentamethylenethiuram disulfide
CN NSC 527035
CN Robac PTD
FS 3D CONCORD
MF C12 H20 N2 S4
LC STN Files: BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, NIOSHTIC, RTECS*, SPECINFO, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



104 REFERENCES IN FILE CA (1967 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
104 REFERENCES IN FILE CAPLUS (1967 TO DATE)
15 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:129593

REFERENCE 2: 134:321746

REFERENCE 3: 134:237436

REFERENCE 4: 134:222836

REFERENCE 5: 133:336375

REFERENCE 6: 133:336374

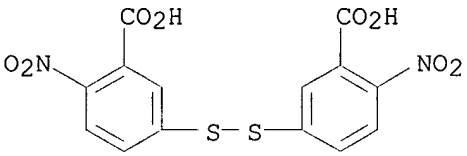
REFERENCE 7: 133:290306

REFERENCE 8: 133:239194

REFERENCE 9: 133:178587

REFERENCE 10: 132:166336

L90 ANSWER 52 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **69-78-3** REGISTRY
CN Benzoic acid, 3,3'-dithiobis[6-nitro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2,2'-Dinitro-5,5'-dithiodibenzoic acid
CN 3,3'-Dithiobis(6-nitrobenzoic acid)
CN 5,5'-Dithiobis[2-nitrobenzoic acid]
CN Ba 2767
CN DTNB
CN Named reagents and solutions, Ellman's
FS 3D CONCORD
MF C14 H8 N2 O8 S2
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



1146 REFERENCES IN FILE CA (1967 TO DATE)
38 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1146 REFERENCES IN FILE CAPLUS (1967 TO DATE)
18 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:149048

REFERENCE 2: 135:147458

REFERENCE 3: 135:104430

REFERENCE 4: 135:103867

REFERENCE 5: 135:101846

REFERENCE 6: 135:97445

REFERENCE 7: 135:89302

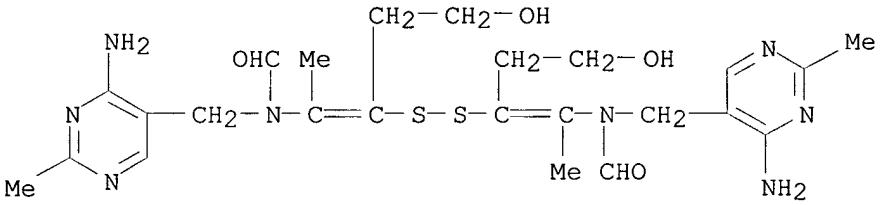
REFERENCE 8: 135:41003

REFERENCE 9: 134:350258

REFERENCE 10: 134:349838

L90 ANSWER 53 OF 53 REGISTRY COPYRIGHT 2001 ACS
RN **67-16-3** REGISTRY
CN Formamide, N,N'-[dithiobis[2-(2-hydroxyethyl)-1-methyl-2,1-

ethenediyl]]bis[N-[(4-amino-2-methyl-5-pyrimidinyl)methyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Formamide, N,N'-[dithiobis[2-(2-hydroxyethyl)-1-methylvinylene]]bis[N-[(4-amino-2-methyl-5-pyrimidinyl)methyl]- (7CI, 8CI)
OTHER NAMES:
CN Algoneurina
CN Alitia S
CN Aneurine disulfide
CN Apren S
CN Daiomin
CN Daisazin
CN Feidmin 5
CN N,N'-[Dithiobis[2-(2-hydroxyethyl)-1-methylvinylene]]bis[N-[(4-amino-2-methyl-5-pyrimidinyl)methyl]formamide
CN Neolamin
CN SSB1
CN TDS
CN TDS (neurotrope)
CN Thiamidin F
CN Thiamin disulfide
CN Thiamine disulfide
CN Vitamin B1 disulfide
MF C24 H34 N8 O4 S2
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, MRCK*, PHAR, PROMT, RTECS*, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



153 REFERENCES IN FILE CA (1967 TO DATE)
7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
153 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 134:366891

REFERENCE 2: 133:263015

REFERENCE 3: 132:347366

REFERENCE 4: 132:30812

REFERENCE 5: 131:308852

REFERENCE 6: 131:291297

REFERENCE 7: 131:257023

REFERENCE 8: 131:210860

REFERENCE 9: 131:106888

REFERENCE 10: 130:257337

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L107 ANSWER 1 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 2000:692095 HCAPLUS
DN 133:227842
TI Cochleate delivery vehicles
IN Gould-Fogerite, Susan; Mannino, Raphael James
PA USA
SO U.S., 24 pp., Cont.-in-part of Appl. No. PCT/US96/01704.
CODEN: USXXAM
DT Patent
LA English
IC H61K048-00
NCL 514044000
CC **63-6** (Pharmaceuticals)
Section cross-reference(s): 18
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5994318	A	19991130	US 1997-803662	19970221 <--
	US 5643574	A	19970701	US 1993-130986	19931004 <--
	US 5840707	A	19981124	US 1995-394170	19950222 <--
	WO 9625942	A1	19960829	WO 1996-US1704	19960222

W: AU, CA, JP, NZ, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRAI	US 1993-130986	A2	19931004	<--
	US 1995-394170	A2	19950222	
	WO 1996-US1704	A2	19960222	

AB The disclosure relates to cochleates comprising a) a biol. relevant mol. component b) a neg. charged lipid component, and c) a divalent cation component. The cochleate has an extended shelf life, even in a desiccated state. Advantageously, the cochleate can be ingested. The biol. relevant mol. can be a topical application and an in vitro treatment, a polypeptide a drug, a nutrient, or a flavor. Viral glycoprotein-contg. cochleates were prepd. from phosphatidylserine, cholesterol, octyl .alpha.-D-glucopyranoside, and viruses.
ST cochleate drug delivery; nutrient delivery cochleate
IT Immunostimulants
(adjuvants; cochleate delivery vehicles)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cinnamon; cochleate delivery vehicles)
IT Anesthetics
Anti-infective agents
Anti-inflammatory agents
Antibacterial agents
Antitumor agents
Antiviral agents
Nutrients
Tranquilizers
Vaccines
Vasodilators
(cochleate delivery vehicles)
IT Carbohydrates, biological studies
Essential oils
Fatty acids, biological studies
Lipids, biological studies
Peptides, biological studies
Phosphatidylserines
Proteins, general, biological studies
Steroids, biological studies
Toxins
Vitamins

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cochleate delivery vehicles)
IT Drug delivery systems
(liposomes; cochleate delivery vehicles)
IT 50-02-2, Dexamethasone 50-23-7, Hydrocortisone 50-24-8, Prednisolone 52-53-9, Verapamil 53-06-5, Cortisone 148-82-3, Melphalan 379-68-0, 18-Hydroxydeoxycorticosterone 439-14-5, Diazepam 512-64-1, Echinomycin 645-05-6, Hexamethylmelamine 1406-16-2, Vitamin d 1406-18-4, Vitamin e 1421-14-3, Propanidid 2078-54-8, Propofol **7439-89-6**, Iron, biological studies 7439-95-4, Magnesium, biological studies 7440-39-3, Barium, biological studies 7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological studies 8067-82-1, Alphadione 11103-57-4, Vitamin a 12001-76-2, Vitamin b 12001-79-5, Vitamin k **15158-11-9**, Cupric ion, biological studies 15438-31-0, Ferrous ion, biological studies 21829-25-4, Nifedipine 22204-53-1, Naproxen 22537-22-0, Magnesium ion, biological studies 22832-87-7, Miconazole nitrate 23713-49-7, Zinc ion, biological studies 25316-40-9, Adriamycin 29767-20-2, Teniposide 33069-62-4, Taxol 36322-90-4, Piroxicam 53123-88-9, Rapamycin 59277-89-3, Acyclovir 59865-13-3, Cyclosporin a 114977-28-5, Taxotere
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(cochleate delivery vehicles)
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L107 ANSWER 2 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1999:794242 HCAPLUS
DN 132:30812
TI Method for identifying and using compounds that inactivate **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in the viral nucleocapsid protein
IN **Henderson, Louis E.**; **Arthur, Larry O.**; **Rice, William G.**; Rein, Alan R.
PA United States of America as Represented by the Department of Health and Human Services, USA
SO U.S., 30 pp., Cont.-in-part of U.S. Ser. No. 312,331, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM C12Q001-70
NCL 435005000
CC **1-5** (Pharmacology)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6001555	A	19991214	US 1995-379420	19950127 <--
PRAI	US 1994-312331	B2	19940923 <--		

OS MARPAT 132:30812
AB The present invention provides several classes of compds. which can be used to inactivate **retroviruses**, e.g. **HIV**-1, by attacking the CCHC **zinc fingers** of the viral nucleocapsid protein and ejecting the **zinc** therefrom. In addn., kits for identifying compds. that can react with CCHC **zinc**

fingers of the nucleocapsid proteins of a large no. of different **retroviruses** have also been developed. The kits of the present invention describe a set of specific tests and reagents that can be used to screen and identify compds. based on their ability to react with and disrupt **retroviral zinc fingers** in the viral NC proteins and, in turn, inactivate the **retrovirus** of interest.

ST **retrovirus** nucleocapsid protein **zinc finger** antiviral; HIV1 nucleocapsid protein **zinc finger** antiviral; screening antiviral **retrovirus** nucleocapsid protein **zinc finger**

IT Proteins, specific or class
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(NC(p7) (nucleocapsid, p7); identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein. and use with other agents)

IT Nucleotides, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(analogs; identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein. and use with other agents)

IT **Ketones**, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(halo; identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT **Antiviral agents**
Capillary electrophoresis
Fluorometry
HPLC
Human immunodeficiency virus 1
Lentivirus
NMR spectroscopy
Retroviridae
(identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT **Disulfides**
Hydrazides
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT Drug screening
Redox reaction
(identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein. and use with other agents)

IT Immunoassay
(immunoblotting; identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT Proteins, specific or class
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(nucleocapsid; identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT Virus
(oncovirus; identification and use of compds. inactivating **HIV**

-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT Protein motifs
(**zinc finger**; identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT **7440-50-8**, Copper, biological studies
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(cupric ion; identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT **7439-89-6**, Iron, biological studies
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(ferric ion; identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT **69-78-3 94-37-1**, Dicyclopentamethylenethiuram disulfide **97-77-8**, Tetraethylthiuram disulfide **100-32-3 105-65-7 120-78-5 137-26-8**, Tetramethylthiuram disulfide **502-55-6**, O,O-Diethyl dithiobis(thioformate) **537-91-7 541-59-3D**, **Maleimide**, derivs. **589-32-2 644-32-6**, Benzoyl disulfide **1119-62-6 1141-88-4 1634-02-2**, Tetrabutylthiuram disulfide **2127-03-9**, Aldrithiol-2 **2461-75-8 2645-22-9**, Aldrithiol-4 **2889-13-6 3696-28-4 3808-87-5 4136-91-8**, Tetraisopropylthiuram disulfide **4490-97-5 5397-29-5 7038-49-5 7439-89-6D**, Iron, complexes **7440-50-8D**, Copper, complexes **10102-43-9**, **Nitric oxide**, biological studies **10102-43-9D**, **Nitric oxide**, derivs. **14193-38-5**, trans-1,2-Dithiane-4,5-diol **14370-67-3**, p-Tolyl disulfoxide **14756-51-5 14807-75-1**, Formamidine disulfide dihydrochloride **15658-35-2 16766-09-9 20201-05-2 24696-61-5**, 2,4-Dinitrophenyl-p-tolyl disulfide **29124-55-8 29581-98-4 33174-74-2 38262-57-6 61747-35-1 66546-28-9 72687-29-7 178487-70-2**
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT **7440-66-6**, **Zinc**, biological studies
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT 252295-83-3
RL: BPR (Biological process); PRP (Properties); BIOL (Biological study); PROC (Process)
(identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

IT 144189-66-2, 3-Nitrosobenzamide
RL: BAC (Biological activity or effector, except adverse); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein. and use with other agents)

IT **67-16-3**, Thiamine disulfide **128-53-0**, N-Ethylmaleimide 30516-87-1 **35964-48-8**

RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein. and use with other agents)

IT 3544-24-9 7447-39-4, Cupric chloride, processes 156730-41-5 252251-19-7
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein. and use with other agents)

IT **13982-39-3**, **Zinc**-65, biological studies
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(release of radioactive; identification and use of compds. inactivating **HIV**-1 or other **retrovirus** by attacking highly conserved **zinc finger** in viral nucleocapsid protein)

RE.CNT 28
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L107 ANSWER 3 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:637543 HCAPLUS
DN 125:293047
TI Two-step treatment method for cancer and other diseases using peroxide-reactive metal-ion contg. compd. followed by peroxide
IN Bodaness, Richard S.
PA USA
SO U.S., 12 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K031-40
NCL 514185000
CC **1-12** (Pharmacology)
Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5563132	A	19961008	US 1994-263186	19940621 <--

AB A two-step treatment method for e.g. cancer consists of the initial administration of a cancer-localizing peroxide-reactive metal-ion contg. compd., followed by administration of a peroxide compd. to the patient after allowing sufficient time for the localization to the cancer of the metal-ion contg. compd. to occur. The product of the chem. reaction between the cancer-localizing metal-ion contg. compd. and the peroxide compd. is an oxidant species which acts to destroy the cancer.

ST cancer treatment metal compd peroxide; two step therapeutic metal compd peroxide

IT Antigens
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(destruction of; peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Animal tissue
(destruction; peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Cell membrane
(metal-ion contg. compd. localizing to; peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Animal cell
(peroxide-generating; peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Cytotoxic agents
Neoplasm inhibitors
Oxidizing agents
Psoriasis
Reiter's disease
Therapeutics
Virucides and Virustats
(peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Coordination compounds
Corrinoids
Peroxides, biological studies
Pheophorbides
Pheophytins
Porphyrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tissue-localizing; peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Skin, disease
(Sweet's syndrome, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Keratosis
(actinic, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Neoplasm inhibitors
(basal cell carcinoma, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Skin, neoplasm
(basal cell carcinoma, inhibitors, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

IT Porphyrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chlorins, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT Transplant and Transplantation
(graft-vs.-host reaction, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT Dermatitis
(herpetiformis, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT Blood vessel, disease
(leukocytoclastic vasculitis, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT Peroxides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(org., peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phorbins, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT Porphyrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(purpurins, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT Psoriasis
(pustular, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT Porphyrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sapphyrins, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT Keratosis
(seborrheic, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT Neoplasm inhibitors
(squamous cell carcinoma, peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)
IT 101-60-0, Porphin 480-57-9, Erythrin 493-90-3 553-12-8 574-93-6, Phthalocyanine 2683-78-5, Bacteriochlorin 4396-11-6, Porphyrinogen **7439-89-6D**, Iron, complexes 7439-92-1D, Lead, complexes 7439-96-5D, Manganese, complexes 7439-97-6D, Mercury, complexes 7439-98-7D, Molybdenum, complexes 7440-02-0D, Nickel, complexes 7440-03-1D, Niobium, complexes 7440-04-2D, Osmium, complexes 7440-06-4D, Platinum, complexes 7440-15-5D, Rhenium, complexes 7440-16-6D, Rhodium, complexes 7440-18-8D, Ruthenium, complexes 7440-19-9D, Samarium, complexes 7440-22-4D, Silver, complexes 7440-25-7D, Tantalum, complexes 7440-26-8D, Technetium, complexes 7440-31-5D, Tin, complexes 7440-32-6D, Titanium, complexes 7440-33-7D, Tungsten, complexes 7440-45-1D, Cerium, complexes 7440-47-3D, Chromium, complexes 7440-48-4D, Cobalt, complexes **7440-50-8D**, Copper, complexes 7440-53-1D, Europium, complexes 7440-58-6D, Hafnium, complexes 7440-62-2D, Vanadium, complexes 7440-64-4D, Ytterbium, complexes 7440-67-7D, Zirconium, complexes 7722-84-1, Hydrogen peroxide, biological studies 11062-77-4, Superoxide 12713-07-4, Verdin 14875-96-8, Heme 15489-90-4, Hematin 15710-60-8 16009-13-5, Hemin 26183-20-0 26316-36-9 26444-09-7, Corrole 26660-92-4, Phlorin 27121-71-7 30975-71-4 58576-14-0, Corphin 64479-33-0
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(peroxide-reactive metal-ion contg. compd. followed by peroxide for two-step treatment method for cancer and other diseases)

L107 ANSWER 4 OF 37 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:590812 HCAPLUS
DN 125:284915
TI Delivery of therapeutic agents to receptors using polysaccharides
IN Groman, Ernest V.; Menz, Edward T.; Enriquez, Philip M.; Jung, Chu; Lewis, Jerome M.; Josephson, Lee
PA Advanced Magnetics, Inc., USA
SO U.S., 15 pp. Cont.-in-part of U.S. 5, 478, 576.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K047-26
ICS A61K031-56; A61K031-495; A61K031-70; A61K039-395; A61K033-26; A61K038-21
NCL 424488000
CC **63-6** (Pharmaceuticals)
Section cross-reference(s): 1, 33
FAN.CNT 12

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5554386	A	19960910	US 1994-260551	19940616 <--
	EP 670167	A1	19950906	EP 1995-102752	19890803 <--
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	EP 441797	B1	19960918	EP 1989-910555	19890816 <--
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	AT 142891	E	19961015	AT 1989-910555	19890816 <--
	US 5069216	A	19911203	US 1989-409384	19890919 <--
	US 5141739	A	19920825	US 1991-679526	19910402 <--
	US 5262176	A	19931116	US 1991-694636	19910502 <--
	US 5248492	A	19930928	US 1992-860388	19920330 <--
	US 5219554	A	19930615	US 1992-863360	19920331 <--
	US 5478576	A	19951226	US 1992-900686	19920617 <--
	US 5352432	A	19941004	US 1992-917567	19920720 <--
	US 5342607	A	19940830	US 1992-924121	19920803 <--
	US 5314679	A	19940524	US 1992-995111	19921222 <--
	US 5589591	A	19961231	US 1994-346142	19941129 <--
	WO 9534325	A1	19951221	WO 1995-US7240	19950607 <--
	W: AU, BR, BY, CA, CN, JP, KR, KZ, LK, MX, NZ, RU, UA, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9527001	A1	19960105	AU 1995-27001	19950607 <--
	CN 1150761	A	19970528	CN 1995-193606	19950607 <--
	ZA 9504925	A	19960213	ZA 1995-4925	19950614 <--
PRAI	US 1986-882044	A2	19860703 <--		
	US 1987-67586	A2	19870626 <--		
	US 1988-228640	B2	19880804 <--		
	US 1989-384991	B1	19890728 <--		
	US 1990-630017	B1	19901219 <--		
	US 1991-679526	A2	19910402 <--		
	US 1992-900686	A2	19920617 <--		
	US 1992-936873	A2	19920827 <--		
	US 1988-233177	A	19880816 <--		
	US 1988-244432	A1	19880914 <--		
	EP 1989-909342	A3	19890803 <--		
	WO 1989-US3517	W	19890816 <--		
	US 1989-409383	B1	19890919 <--		
	US 1990-475618	A3	19900206 <--		
	US 1990-480677	B2	19900215 <--		
	US 1991-637969	B1	19910109 <--		
	US 1991-650957	A2	19910205 <--		
	US 1991-769310	B1	19911001 <--		
	US 1991-771876	A3	19911003 <--		
	US 1994-260551	A2	19940616 <--		
	WO 1995-US7240	W	19950607		

AB This invention relates to a method of directing a therapeutic agent to selected cells, wherein a complex is formed between a polysaccharide capable of interacting with a cell receptor and a therapeutic agent. The resulting complex is administered to a subject, and permitted to be

internalized into the selected cells through a process known as receptor mediated endocytosis (RME). The polysaccharide may be, for example, arabinogalactan, gum arabic, mannan or hydrolysis products thereof; the therapeutic agent may be, for example, an antiviral agent, a nucleic acid, hormone, steroid, antibody, vitamins, enzymes, chemoprotective or radioprotective agent. The cell receptor may be for example, the asialoglycoprotein receptor or the mannose receptor. A colloidal iron oxide coated with arabinogalactan was prepd. to target iron to hepatocytes for treatment of iron deficiency anemia. The colloid was cleared by the asialoglycoprotein receptor of hepatocytes and injected iron was identified in the liver, and not in the spleen.

ST drug delivery receptor polysaccharide

IT Radioprotectants
Virucides and Virustats
(drug delivery to receptors using polysaccharides)

IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(drug delivery to receptors using polysaccharides)

IT Antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery to receptors using polysaccharides)

IT Corticosteroids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery to receptors using polysaccharides)

IT Estrogens
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery to receptors using polysaccharides)

IT Hormones
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery to receptors using polysaccharides)

IT Nucleic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery to receptors using polysaccharides)

IT Polysaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery to receptors using polysaccharides)

IT Steroids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery to receptors using polysaccharides)

IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(asialoglycoprotein, drug delivery to receptors using polysaccharides)

IT Sialoglycoprotein receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(asialosialoglycoprotein, drug delivery to receptors using polysaccharides)

IT Biological transport
(endocytosis, receptor-mediated, drug delivery to receptors using polysaccharides)

IT Liver
(hepatocyte, drug delivery to receptors using polysaccharides)

IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(mannose, drug delivery to receptors using polysaccharides)

IT **7439-89-6**, Iron, biological studies
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(colloid contg.; drug delivery to receptors using polysaccharides)

IT 61-19-8, Adenosine monophosphate, reactions 616-91-1, N-Acetyl-L-cysteine 41164-36-7, 3-O-(Carboxymethyl)estradiol
RL: RCT (Reactant)
(drug delivery to receptors using polysaccharides)

IT 58-05-9, Folinic acid 59-05-2, Methotrexate 6923-42-8, 6-Methylprednisolone 7705-08-0, Ferric chloride, biological studies 7758-94-3, Ferrous chloride 9000-01-5, Gum arabic 9036-66-2, Arabinogalactan 9036-88-8, Mannan 29984-33-6, Ara-AMP
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); USES

(Uses)
(drug delivery to receptors using polysaccharides)
IT 58-05-9DP, Folinic acid, reaction products with polysaccharides
59-05-2DP, Methotrexate, reaction products with polysaccharides
61-19-8DP, Adenosine monophosphate, reaction products with amino gum arabic 67-43-6DP, Diethylene triaminepentaacetic acid, reaction products with polysaccharides and drugs 616-91-1DP, N-Acetyl-L-cysteine, reaction products with amino gum arabic 6923-42-8DP, 6-Methylprednisolone, reaction products with polysaccharides 9000-01-5DP, Gum arabic, amine derivs., reaction products with drugs 9036-66-2DP, Arabinogalactan, reaction products with DTPA and drugs 9036-88-8DP, Mannan, reaction products with drugs 29984-33-6DP, Ara-AMP, reaction products with arabinogalactan deriv. 41164-36-7DP, 3-O-(Carboxymethyl)estradiol, reaction products with amino gum arabic
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug delivery to receptors using polysaccharides)
IT 1332-37-2, Iron oxide, biological studies 9072-19-9, Fucoidan
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery to receptors using polysaccharides)

L107 ANSWER 5 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:494753 HCAPLUS
DN 125:151189
TI Therapeutic conjugates of toxins and drugs for cancer and infection treatment
IN Hansen, Hans J.; Griffiths, Gary L.; Lentine-jones, Anastasia; Goldenberg, David M.
PA Immunomedics, Inc., USA
SO U.S., 7 pp., Cont.-in-part of U.S. 5,328,679.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07K016-46
ICS A61K039-395
NCL 530391700
CC **63-6** (Pharmaceuticals)
FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5541297	A	19960730	US 1992-882177	19920511 <--
	US 5061641	A	19911029	US 1988-176421	19880401 <--
	US 5128119	A	19920707	US 1989-392280	19890810 <--
	CA 1335267	A1	19950418	CA 1989-615461	19890929 <--
	AU 9059249	A1	19910108	AU 1990-59249	19900611 <--
	AU 647028	B2	19940317		
	JP 05500800	T2	19930218	JP 1990-509837	19900611 <--
	IL 113168	A1	19960723	IL 1990-113168	19900611 <--
	ZA 9004521	A	19910327	ZA 1990-4521	19900612 <--
	AU 9065214	A1	19910418	AU 1990-65214	19900918 <--
	AU 640698	B2	19930902		
	JP 04505455	T2	19920924	JP 1990-514034	19900918 <--
	JP 07023326	B4	19950315		
	US 5328679	A	19940712	US 1991-760466	19910917 <--
	NO 9104877	A	19920204	NO 1991-4877	19911211 <--
	NO 9200853	A	19920304	NO 1992-853	19920304 <--
	FI 9201146	A	19920317	FI 1992-1146	19920317 <--
	US 5514363	A	19960507	US 1993-1419	19930107 <--
	WO 9323062	A1	19931125	WO 1993-US4136	19930507 <--
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 651646	A1	19950510	EP 1993-910988	19930507 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 08500084	T2	19960109	JP 1993-518731	19930507 <--
	JP 2942356	B2	19990830		
	CA 2118032	C	19980929	CA 1993-2118032	19930507 <--

	US 5601825	A	19970211	US 1995-452131	19950526 <--
PRAI	US 1988-176421	A1	19880401	<--	
	US 1989-364373	B2	19890612	<--	
	US 1989-392280	A2	19890810	<--	
	US 1989-408241	B2	19890918	<--	
	US 1990-518707	B2	19900507	<--	
	US 1990-581913	B2	19900913	<--	
	US 1991-760466	A2	19910917	<--	
	IL 1990-94690	A3	19900611	<--	
	WO 1990-US3142	A	19900611	<--	
	WO 1990-US5196	A	19900918	<--	
	US 1992-882177	A	19920511	<--	
	WO 1993-US4136	W	19930507	<--	

AB Conjugates useful in cancer or infectious disease therapy comprise a drug or modified toxin (a native toxin devoid of a functioning receptor-binding domain) and a protein which reacts with a substance assocd. with a targeted cell or pathogen. The targeted substance internalizes the conjugate into the cell cytoplasm, and the drug or toxin kills the cell. The protein prior to conjugation has .gtoreq.1 SH group which becomes a site for conjugation to the toxin or drug. Thus, the F(ab')2 fragment of murine anti-B cell lymphoma antibody LL-2 was conjugated with an activated PEG-peptide deriv. linker, and the product was reduced with DTT and reacted with an activated Pseudomonas exotoxin which was modified by removal of the Ia binding domain; the resulting therapeutic agent was purified by gel chromatog.

ST toxin immunoconjugate cancer infection therapy

IT Leukemia
(antibodies to cells of, conjugates with drugs or toxins; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Carcinoma
Lymphoma
Myeloma
Protozoa
Sarcoma
(antibodies to, conjugates with drugs or toxins; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Pseudomonas
(exotoxin of, modified, conjugate with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Toxins
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(receptor-binding domain-deficient, antibody conjugates; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Linking agents
Neoplasm inhibitors
(therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Antibodies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(to protozoa or tumor-assocd. antigens, conjugates with drugs or toxins; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PAP (pokeweed antiviral protein), conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates, with antibody and drug or toxin; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Abrins

Ricins
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Toxins
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diphtheria, conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Biological transport
(endocytosis, therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Toxins
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exo-, conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Sialoglycoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gp120env, of **HIV**, recombinant monoclonal antibody to, Fab' fragment of, conjugate with puromycin; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT **Virus, animal**
(**human immunodeficiency**, infection with, treatment of; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Pharmaceutical dosage forms
(immunoconjugates, therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Neoplasm inhibitors
(lymphoma, therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Peptides, biological studies
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lysine-contg., linkers; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Alcohols, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyhydric, conjugates, with antibody and drug or toxin; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(saporins, conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(tumor-assocd., antibodies to, conjugates with drugs or toxins; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT Toxins
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(.alpha.-, conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT 75037-46-6, Gelonin
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates, with antibody; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT **541-59-3, Maleimide**
RL: RCT (Reactant); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(linker; therapeutic conjugates of toxins and drugs for cancer and infection treatment)

IT 53-79-2D, Puromycin, immunoconjugates 66-81-9D, Cycloheximide, immunoconjugates 9001-99-4D, RNase, immunoconjugates 9004-54-0D, Dextran, conjugates with antibody and drug or toxin 25322-68-3D, PEG, conjugates with antibody and drug or toxin
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(therapeutic conjugates of toxins and drugs for cancer and infection treatment)

L107 ANSWER 6 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:422386 HCAPLUS
DN 125:76341
TI A method for identifying and using compounds that inactivate **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in the viral nucleocapsid protein
IN **Henderson, Louis E.; Arthur, Larry O.; Rice, William G.**
PA United States Dept. of Health and Human Services, USA
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12Q001-18
ICS A61K031-04; A61K031-095; A61K031-12; A61K031-15; A61K031-295; A61K031-30; A61K031-40
CC **1-5** (Pharmacology)
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9609406	A1	19960328	WO 1995-US11915	19950919 <--
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9535927	A1	19960409	AU 1995-35927	19950919 <--
EP 782632	A1	19970709	EP 1995-933161	19950919 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
PRAI US 1994-312331	A	19940923 <--		
WO 1995-US11915	W	19950919		

OS MARPAT 125:76341
AB Several classes of compds. (disulfides, **maleimides**, .alpha.-halogenated ketones, hydrazides, **nitric oxide** and NO-contg. derivs., cupric ions and complexes thereof, ferric ions and complexes thereof) are provided which can be used to inactivate **retroviruses**, e.g. **HIV**-1, by attacking the CCHC **zinc fingers** of the viral nucleocapsid protein and ejecting the **zinc** therefrom. In addn., kits for identifying compds. that can react with CCHC **zinc fingers** of the nucleocapsid proteins of a large no. of different **retroviruses** have also been developed. The kits of the present invention describe a set of specific tests and reagents that can be used to screen and identify compds. based on their ability to react with and disrupt **retroviral zinc fingers** in the viral NC proteins and, in turn, inactivate the **retrovirus** of interest. The effect of e.g. disulfides on **HIV**-1 is included.
ST **retrovirus** nucleocapsid protein **zinc finger** inactivation; HIV1 nucleocapsid protein **zinc finger** inactivation
IT Fluorometry
Nuclear magnetic resonance
(detection of **zinc** dissocn. from **zinc**

finger in relation to identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT Electrophoresis and Ionophoresis
(gel mobility shift; detection of **zinc** dissocn. from **zinc finger** in relation to identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT Electron acceptors
Virucides and Virustats
(identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **Disulfides**
Hydrazides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT Proteins, specific or class
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)
(nucleocapsid p11; identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT Proteins, specific or class
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(NC(p7) (nucleocapsid, p7), identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT Nucleotides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(analogs, identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein, and use with addnl. nucleotide analog)

IT Electrophoresis and Ionophoresis
(capillary, detection of **zinc** dissocn. from **zinc finger** in relation to identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **Virus, animal**
(**equine infectious anemia**, identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **Ketones**, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(halo, identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT Chromatography, column and liquid
(high-performance, detection of **zinc** dissocn. from **zinc finger** in relation to identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **Virus, animal**
(**human immunodeficiency** 1, identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT Immunoassay
(immunoblotting, detection of **zinc** dissocn. from **zinc finger** in relation to identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **Virus, animal**
(**lenti-**, identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT Proteins, specific or class
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(nucleocapsid, identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT Virus, animal
(oncogenic, identification and use of compds. inactivating **HIV** -1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **Virus, animal**
(**retro-**, identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT Conformation and Conformers
(**zinc-finger** motif, identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **7440-50-8**, Copper, biological studies **7440-50-8D**, Copper, complexes
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(cupric ion; identification and use of compds. inactivating **HIV** -1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **13982-39-3**, **Zinc**-65, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(detection of **zinc** dissocn. from **zinc finger** in relation to identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **7439-89-6**, Iron, biological studies **7439-89-6D**, Iron, complexes
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(ferric ion; identification and use of compds. inactivating **HIV** -1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **67-16-3**, Thiamine disulfide **69-78-3 94-37-1**, Dicyclopentamethylenethiuram disulfide **97-77-8**, Tetraethylthiuram disulfide **100-32-3** 108-25-8 **120-78-5 128-53-0**, N-Ethylmaleimide **137-26-8**, Tetramethylthiuram disulfide **502-55-6**, O,O-Diethyldithiobis(thioformate) **537-91-7**, Bis 3-Nitrophenyl disulfide **589-32-2 644-32-6**, Benzoyl disulfide **1119-62-6**, 3,3-Dithiobispropionic acid **1141-88-4 1634-02-2**, Tetrabutylthiuram disulfide **2127-03-9**, Aldrithiol-2 **2461-75-8 2645-22-9**, Aldrithiol-4 **2889-13-6 3696-28-4 3808-87-5**, Bis 2,4,5-Trichlorophenyl disulfide **4136-91-8**, Tetraisopropylthiuram disulfide **4490-97-5 5397-29-5** 5428-99-9 7447-39-4, Cupric chloride, biological studies **14193-38-5**, trans-1,2-Dithiane-4,5-diol **14370-67-3**, p-Tolyl disulfoxide **14807-75-1**, Formamidine

disulfide dihydrochloride **15658-35-2 16766-09-9**
20201-05-2, Bis 2-Chloro-5-nitrophenyl disulfide
24696-61-5, 2,4-Dinitrophenyl p-tolyl disulfide **29124-55-8**
29581-98-4 33174-74-2, 2,2-Dithiobis(benzonitrile)
35964-48-8 38262-57-6 40897-56-1 **61747-35-1**
66546-28-9 72687-29-7 144189-66-2, 3-Nitrosobenzamide
178487-70-2
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **7440-66-6, Zinc**, biological studies
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT **541-59-3D, Maleimide**, derivs. **10102-43-9, Nitric oxide**, biological studies **10102-43-9D, Nitric oxide**, derivs.
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein)

IT 30516-87-1, AZT
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(identification and use of compds. inactivating **HIV**-1 and other **retroviruses** by attacking highly conserved **zinc fingers** in viral nucleocapsid protein, and use with addnl. nucleotide analog)

L107 ANSWER 7 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:323209 HCAPLUS
DN 125:1364
TI Inhibition of virus by **nitric oxide**
IN Stamler, Jonathan; Mannick, Joan
PA Brigham and Women's Hospital, USA
SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K038-00
CC **1-5** (Pharmacology)
Section cross-reference(s): **63**

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9602268	A1	19960201	WO 1995-US8763	19950713 <--
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9529705	A1	19960216	AU 1995-29705	19950713 <--
PRAI	US 1994-276057		19940715 <--		
	WO 1995-US8763		19950713		

OS MARPAT 125:1364
AB A method for inhibiting the replication of a virus involves exposing the virus to **nitric oxide** or a **nitric oxide**-releasing, -delivering or -transferring substance, particularly administering a virus replication-inhibitory amt. of **nitric oxide** or a **nitric oxide** -releasing substance to an individual having a virus infection. A method for preventing or reversing latency in a virus involves exposing the latent virus to a **nitric oxide** synthase inhibitor. A method for the treatment of a latent virus infection in an individual involves administering (i) a virus latency-preventing or -reversing amt. of a **nitric oxide** synthase inhibitor sufficient to render the virus replicative and then (ii) a virus replication-inhibitory

amt. of **nitric oxide** or a **nitric oxide**-releasing substance and a compn. of (i) and (ii) for such treatment, (iii) a prophylactic amt. of NO(ii) to prevent latent virus from becoming replicative.

ST **nitric oxide** virus inhibition; synthase **nitric oxide** inhibitor virus latency

IT Amino acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(S-nitroso; inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

IT Proteins, specific or class, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(S-nitrosylated; inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

IT Nitrates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(and thionitrates; inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

IT Pharmaceutical dosage forms
Virucides and Virustats
(inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

IT Nitroso compounds
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

IT Apoptosis
(**nitric oxide** for apoptosis prevention)

IT Lymphocyte
(**nitric oxide** for apoptosis prevention in lymphocytes)

IT Metals, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nitroso-metal compds.; inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

IT Lymphocyte
(B-cell, **nitric oxide** for apoptosis prevention in lymphocytes)

IT Virus, animal
(Epstein-Barr, inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

IT Amines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(N-nitroso, and N-oxo-N-nitrosoamines; inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

IT Thiols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(S-nitroso, inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

IT Virus, animal
(cytomegalo-, inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

IT Virus, animal
(herpes, inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and

method for the treatment of a latent virus infection)
IT Leukocyte
(mononuclear, mononuclear cell-produced **nitric oxide** inhibition of Epstein-Barr virus replication)
IT Virus, animal
(varicella-zoster, inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)
IT 9015-82-1, Angiotensin-converting enzyme
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(S-nitroso inhibitors; inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)
IT 7665-99-8, Cyclic GMP
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(cGMP role in relation to **nitric oxide** inhibition of Epstein-Barr virus replication and apoptosis)
IT 14402-89-2, Sodium nitroprusside 17035-90-4, NG-Monomethyl-L-arginine 73466-15-6, S-Nitrosopenicillamine
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)
IT 59-05-2, Methotrexate 61-73-4, Methylene blue 70-26-8, Ornithine 70-26-8D, Ornithine, derivs. 244-54-2, Diphenylene iodonium 244-54-2D, Diphenylene iodonium, derivs. 2149-70-4, Nitroarginine
10102-43-9, **Nitric oxide**, biological studies
50903-99-6, N-Nitro-L-arginine methyl ester 88871-35-6 130770-26-2 130770-27-3 130770-29-5 130770-32-0 130770-33-1 130770-36-4 130770-37-5 130770-39-7 130770-41-1 130770-42-2 130812-24-7 176798-46-2 176798-49-5 176977-65-4 176977-67-6 176977-68-7
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)
IT 125978-95-2, **Nitric oxide** synthase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; inhibition of virus by **nitric oxide** species, method for preventing or reversing latency in a virus, and method for the treatment of a latent virus infection)

L107 ANSWER 8 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:301304 HCAPLUS
DN 124:307568
TI Bio-assimilable boron compounds for treatment of viroid infections in animals and plants
IN Bengsch, Eberhard; Kettrup, Antonius; Polster, Juergen
PA GSF - Forschungszentrum fuer Umwelt und Gesundheit Gmbh, Germany
SO Ger., 9 pp.
CODEN: GWXXAW
DT Patent
LA German
IC ICM A61K033-22
ICS A61K031-69; C12N007-02
CC **1-5** (Pharmacology)
Section cross-reference(s): 5
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4441483	C1	19960404	DE 1994-4441483	19941122 <--
	WO 9615798	A2	19960530	WO 1995-EP4494	19951115 <--
	WO 9615798	A3	19960808		
	W: AU, CA, CN, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9641171	A1	19960617	AU 1996-41171	19951115 <--

AU 716511 B2 20000224
EP 797445 A2 19971001 EP 1995-939285 19951115 <--
R: CH, DE, DK, FR, GB, NL, SE
CN 1173135 A 19980211 CN 1995-197433 19951115 <--
JP 10509161 T2 19980908 JP 1995-516536 19951115 <--
US 6133198 A 20001017 US 1998-215764 19981219 <--
PRAI DE 1994-4441483 A 19941122 <--
WO 1995-EP4494 W 19951115
US 1997-859733 B3 19970521

AB Assimilable B compds. are effective in treatment of subacute, degenerative, noninflammatory diseases of the central nervous system in humans and other vertebrates caused by infection with subviral particles (e.g. Creutzfeldt-Jakob disease, scrapie), as well as in protection of plants from diseases induced by viroids (e.g. potato spindle tuber viroid). Evidence for the effectiveness of B compds. in animals is epidemiol.: geog. areas free of scrapie and bovine spongiform encephalitis are characterized by extremely high B levels in soil and plants. Tomato plants infected with potato spindle tuber viroid and treated with boric acid or borax were protected from the degenerative manifestations of the viroid disease. The treated, viroid-infected plants produced more biomass and fruits than control plants treated with B, and showed a 5-fold higher viroid concn. than infected plants not treated with B, but without development of disease symptoms. Bioavailable Si compds. are antidotes to the phytotoxicity of high B concns. B may be administered to animals in the form of exts. from B-rich plants; Cu compds. are antidotes to excessive B administration in animals.

ST boron compd viroid infection animal plant

IT Viroid
Virucides and Virustats
(bio-assimilable boron compds. for treatment of viroid infections in animals and plants)

IT Plant
(exts., boron compds. in; bio-assimilable boron compds. for treatment of viroid infections in animals and plants)

IT Tomato
(infection with potato spindle tuber viroid, treatment of; bio-assimilable boron compds. for treatment of viroid infections in animals and plants)

IT Fertilizer experiment
(with boron compds., on tomato, viroid effect on)

IT Nervous system
(central, disease, infection, with viroid; bio-assimilable boron compds. for treatment of viroid infections in animals and plants)

IT Viroid
(potato spindle tuber, tomato infection with, treatment of; bio-assimilable boron compds. for treatment of viroid infections in animals and plants)

IT Plant disease
(viroid, bio-assimilable boron compds. for treatment of viroid infections in animals and plants)

IT 7440-21-3D, Silicon, compds.
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(antidotes to boron; bio-assimilable boron compds. for treatment of viroid infections in animals and plants)

IT **7440-50-8D**, Copper, compds.
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antidotes to boron; bio-assimilable boron compds. for treatment of viroid infections in animals and plants)

IT 7440-42-8D, Boron, compds.
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bio-assimilable boron compds. for treatment of viroid infections in animals and plants)

IT 1303-96-4, Borax 10043-35-3, Boric acid, biological studies
RL: BAC (Biological activity or effector, except adverse); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)
(fertilizer expt. with, viroid effect on; bio-assimilable boron compds. for treatment of viroid infections in animals and plants)

L107 ANSWER 9 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1996:128017 HCAPLUS
DN 124:194289
TI Cage compounds, their preparation and use as antiviral agents
IN Marcuccio, Sebastian Mario; Turner, Kathleen Anne; Holan, George; Osvath, Peter; Sargeson, Alan Mcleod; Weigold, Helmut; Geue, Rodney
PA Commonwealth Scientific and Industrial Research, Australia
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-555
ICS C07D487-08; C07D495-08; C07D513-08
CC **1-5** (Pharmacology)
Section cross-reference(s): 28, 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9531202	A1	19951123	WO 1995-AU283	19950517 <--
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9524397	A1	19951205	AU 1995-24397	19950517 <--
	ZA 9504017	A	19960117	ZA 1995-4017	19950517 <--
PRAI	AU 1994-5656		19940517 <--		
	AU 1994-5720		19940519 <--		
	WO 1995-AU283		19950517		

OS CASREACT 124:194289; MARPAT 124:194289
GI For diagram(s), see printed CA Issue.
AB A method of treatment and/or prophylaxis of a viral infection comprises administration of a cage compd. [I; M = metal capable of forming hexacoordinate complexes; p = 1-6; m, n = 0, 1; A1-A6 = NH, N, O, S; R1, R2 = H, halo, NO2, CN, (substituted) alkyl, OH, (substituted) alkoxy, (substituted) amino, etc.; other positions may be variously substituted]. I are prepd. by reacting a metal complex having .gtoreq.3 terminal NH2 groups with HCHO, a base, and a nucleophile optionally contg. a functional group which may react with any coordinated amine also present on the metal complex, leading to encapsulation and formation of a cage mol. Thus, Co complex II [X = Me; Y = (C8H17)2N(CH2)2NH] showed an ED50 of 0.53 .mu.M against **HIV**-1 in MT-4 cells in vitro, and 3 .mu.M against duck hepatitis B virus in primary duck hepatocyte cultures. The compds. were nontoxic to mice at .ltoreq.50 mg/kg. [Co(sen)].Cl3 [sen = 5-(4-amino-2-azabutyl)-5-methyl-3,7-diazanonane-1,9-diamine] reacted with paraformaldehyde and n-butanal in MeCN in the presence of NaClO4 to form II (X = Me; Y = Et). Controlled-release tablets were prepd. by wet granulation of active ingredient 500, hydroxypropylmethylcellulose 112, lactose 53, and povidone 28 mg, followed by addn. of 7 mg Mg stearate and compression.
ST cage compd prepn virucide; metal cage complex virucide
IT Encephalitis
(-arthritis, in dog, virus-induced; cage compds.: prepn. and use as antiviral agents)
IT **Acquired immune deficiency syndrome**
Dengue
Veterinary medicine
Virucides and Virustats
Yellow fever
(cage compds.: prepn. and use as antiviral agents)

IT Nucleophiles
RL: RCT (Reactant)
(cage compds.: prepn. and use as antiviral agents)
IT Alkali metals, biological studies
Alkaline earth metals
Transition metals, biological studies
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(clathrates; cage compds.: prepn. and use as antiviral agents)
IT Duck
(hepatitis in; cage compds.: prepn. and use as antiviral agents)
IT Felis catus
(virus-induced arthritis in; cage compds.: prepn. and use as antiviral agents)
IT Canis familiaris
(virus-induced arthritis/encephalitis in; cage compds.: prepn. and use as antiviral agents)
IT Hepatitis
(B, cage compds.: prepn. and use as antiviral agents)
IT Hepatitis
(C, cage compds.: prepn. and use as antiviral agents)
IT Group VIII element compounds
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Group 9, complexes, clathrates; cage compds.: prepn. and use as antiviral agents)
IT Virus, animal
(Japanese encephalitis, cage compds.: prepn. and use as antiviral agents)
IT Neoplasm inhibitors
(adult, T-cell leukemia, cage compds.: prepn. and use as antiviral agents)
IT Inflammation inhibitors
(antiarthritics, for virus-induced canine arthritis/encephalitis and feline arthritis; cage compds.: prepn. and use as antiviral agents)
IT Cyclic compounds
Heterocyclic compounds
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cage, cage compds.: prepn. and use as antiviral agents)
IT Inclusion compounds
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(clathrates, cage compds.: prepn. and use as antiviral agents)
IT Virus, animal
(cytomegalo-, cage compds.: prepn. and use as antiviral agents)
IT Virus, animal
(flavi-, cage compds.: prepn. and use as antiviral agents)
IT Virus, animal
(hepadna, cage compds.: prepn. and use as antiviral agents)
IT Virus, animal
(herpes, cage compds.: prepn. and use as antiviral agents)
IT Virus, animal
(herpes simplex 2, herpes genitalis from, cage compds.: prepn. and use as antiviral agents)
IT Virus, animal
(herpes simplex, herpes simplex labialis from, cage compds.: prepn. and use as antiviral agents)
IT Mononucleosis
(infectious, cage compds.: prepn. and use as antiviral agents)
IT Hepatitis
(non-A, non-B, cage compds.: prepn. and use as antiviral agents)

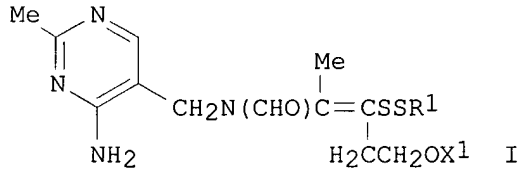
IT Amines, reactions
RL: RCT (Reactant)
(poly-, cage compds.: prepn. and use as antiviral agents)
IT **Virus, animal**
(**retro-**, cage compds.: prepn. and use as antiviral agents)
IT Amines, reactions
RL: RCT (Reactant)
(tri-, cage compds.: prepn. and use as antiviral agents)
IT Virus, animal
(varicella-zoster, herpes zoster from, cage compds.: prepn. and use as antiviral agents)
IT Virus, animal
(varicella-zoster, varicella from, cage compds.: prepn. and use as antiviral agents)
IT 85663-94-1P
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cage compds.: prepn. and use as antiviral agents)
IT 85663-96-3
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cage compds.: prepn. and use as antiviral agents)
IT 173781-88-9P 173781-93-6P 173781-94-7P 173782-15-5P 173782-16-6P
173782-21-3P 173782-34-8P 173782-42-8P 173782-43-9P 173782-47-3P
173782-50-8P 173782-51-9P 173935-93-8P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cage compds.: prepn. and use as antiviral agents)
IT 7439-88-5D, Iridium, clathrates **7439-89-6D**, Iron, clathrates
7439-93-2D, Lithium, clathrates 7439-95-4D, Magnesium, clathrates
7439-96-5D, Manganese, clathrates 7439-97-6D, Mercury, clathrates
7440-02-0D, Nickel, clathrates 7440-06-4D, Platinum, clathrates
7440-18-8D, Ruthenium, clathrates 7440-22-4D, Silver, clathrates
7440-23-5D, Sodium, clathrates 7440-32-6D, Titanium, clathrates
7440-43-9D, Cadmium, clathrates 7440-47-3D, Chromium, clathrates
7440-48-4D, Cobalt, clathrates **7440-50-8D**, Copper, clathrates
7440-62-2D, Vanadium, clathrates 7440-66-6D, Zinc, clathrates
7440-74-6D, Indium, clathrates 71935-78-9 85664-04-6 85664-05-7
85664-06-8 85664-07-9 85664-12-6 91002-83-4 91002-85-6
91002-89-0 107247-40-5 109636-90-0 114595-74-3 121858-89-7
129942-30-9 136230-86-9 158252-47-2 165600-27-1 165600-32-8
165600-33-9 173781-75-4 173781-76-5 173781-77-6 173781-78-7
173781-79-8 173781-80-1 173781-81-2 173781-82-3 173781-83-4
173781-84-5 173781-85-6 173781-86-7 173781-87-8 173781-89-0
173781-90-3 173781-91-4 173781-92-5 173781-95-8 173781-96-9
173781-97-0 173781-98-1 173781-99-2 173782-00-8 173782-01-9
173782-02-0 173782-03-1 173782-04-2 173782-05-3 173782-06-4
173782-07-5 173782-08-6 173782-09-7 173782-10-0 173782-11-1
173782-12-2 173782-13-3 173782-14-4 173782-17-7 173782-18-8
173782-19-9 173782-20-2 173782-22-4 173782-23-5 173782-24-6
173782-25-7 173782-26-8 173782-27-9 173782-28-0 173782-29-1
173782-30-4 173782-31-5 173782-32-6 173782-33-7 173782-35-9
173782-36-0 173782-37-1 173782-38-2 173782-39-3 173782-40-6
173782-41-7 173782-44-0 173782-45-1 173782-46-2 173782-48-4
173782-49-5 173782-52-0 173782-53-1 173782-54-2 173782-55-3
173782-56-4 173782-57-5 173782-59-7 173782-60-0 173782-61-1
173782-63-3 173935-87-0 173935-88-1 173935-89-2 173935-90-5
173935-91-6 173935-92-7 173935-94-9 173935-95-0 173935-96-1
173935-97-2 173935-98-3 173935-99-4 173936-00-0 173936-01-1
173936-02-2 173936-03-3 173936-04-4 173936-05-5 173936-06-6
173936-07-7 173936-08-8 173936-09-9 173936-10-2 173936-11-3
173936-12-4 173936-13-5 173936-14-6 173936-15-7 173936-16-8
174060-23-2 174171-98-3 174171-99-4 174172-00-0 174388-83-1
RL: BAC (Biological activity or effector, except adverse); **THU**

(Therapeutic use); BIOL (Biological study); USES (Uses)
(cage compds.: prepn. and use as antiviral agents)
IT 50-00-0, Formaldehyde, reactions 123-72-8, n-Butanal 7084-11-9, 1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide hydrochloride 13408-73-6 30525-89-4, Paraformaldehyde 82796-46-1 174172-01-1
RL: RCT (Reactant)
(cage compds.: prepn. and use as antiviral agents)

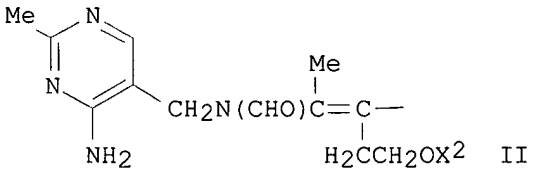
L107 ANSWER 10 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:884218 HCAPLUS
DN 124:135681
TI Anti-**HIV** drugs
IN Shoji, Shozo; Tachibana, Kuniomi
PA Nissui Pharmaceutical Co., Ltd., Japan
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM A61K031-505
CC **1-5** (Pharmacology)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9520388	A1	19950803	WO 1995-JP85	19950125 <--
W: CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2180732	AA	19950803	CA 1995-2180732	19950125 <--
EP 830862	A1	19980325	EP 1995-906519	19950125 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
US 5886000	A	19990323	US 1996-676224	19960723 <--
PRAI JP 1994-7160		19940126 <--		
JP 1994-173042		19940726 <--		
WO 1995-JP85		19950125		

OS MARPAT 124:135681
GI



I



II

AB An anti-**HIV** drug, anti-**HIV** activity synergist, and **AIDS** preventive and remedy, each contg. as the active ingredient a vitamin B1 deriv. (I or II) such as thiamin disulfide, bisbentiamine, bisbutythiamin, bisibutiamine, alitiamin, fursultiamine or octotiamine, or a salt thereof. These drugs can be formulated into any dosage forms and are useful for preventing and treating **AIDS**, because they have the effect of inhibiting the growth of **HIV** on early infected cells without killing the cells and both of the cytocidal and **HIV** -killing effects on the cells that have come to produce **HIV** continuously.
ST **HIV** virucide vitamin B1 deriv

IT **Virucides and Virustats**
(vitamin B1 derivs. as anti-**HIV** drugs)
IT **Virus, animal**
(**human immunodeficiency** 1, vitamin B1 derivs. as anti-**HIV** drugs)
IT 59-43-8D, Vitamin B1, derivs. **67-16-3**, Thiamin disulfide 137-86-0, Octotiamine 554-44-9, Allithiamine 804-30-8, Fursultiamine 2667-89-2, Bisbentiamine 3286-45-1, Bisbutythiamine 3286-46-2, Bisibutiamine 69432-07-1 109125-52-2
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(vitamin B1 derivs. as anti-**HIV** drugs)

L107 ANSWER 11 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:630120 HCAPLUS
DN 123:17876
TI Encapsulated and non-encapsulated **nitric oxide** generators used as antimicrobial agents
IN Green, Shawn J.; Keefer, Larry K.
PA Entremed, Inc., USA; United States Dept. of Health and Human Services
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K009-127
ICS A61K031-04; A61K031-13; A61K031-18; A61K031-20; A61K031-21; A61K031-28; A61K031-30; A61K031-33; A61K031-40; A61K031-44; A61K031-135; A61K031-195; A61K031-445; A61K031-495; A61K31 -535; A61K31 -655
CC **63-6** (Pharmaceuticals)
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9509612	A1	19950413	WO 1994-US11441	19941007 <--
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9479722	A1	19950501	AU 1994-79722	19941007 <--
PRAI US 1993-133601	A	19931007 <--		
WO 1994-US11441	W	19941007 <--		

OS MARPAT 123:17876
AB This invention relates to compns. capable of releasing **nitric oxide** and therapeutic methods of use thereof for the treatment of microorganism-related disease states. The compn. comprises one or more **nitric oxide** generators, preferably encapsulated in vesicles, such as liposomes. The compns. are used therapeutically by administration to humans and animals via different routes for the treatment of infectious diseases cause by pathogenic microbes. For example, lactide-glycolide copolymer was treated with [NH2(CH2)2]2N(NO)(NO)H to obtain a polymer-bound NO/nucleophile adduct. The adduct was encapsulated in a liposome and its antimicrobial effects against Candida albicans, Francisella tularensis, and Leishmania major were in vitro tested.
ST antiinfective **nitric oxide** nucleophile adduct
IT Bactericides, Disinfectants, and Antiseptics
Fungicides and Fungistats
Parasiticides
Virucides and Virustats
(**nitric oxide**-releasing compds. as anti-infective agents)
IT Pharmaceutical dosage forms
(injections, **nitric oxide**-releasing compds. as

anti-infective agents)
IT Pharmaceutical dosage forms
(liposomes, **nitric oxide**-releasing compds. as anti-infective agents)
IT Pharmaceutical dosage forms
(sprays, **nitric oxide**-releasing compds. as anti-infective agents)
IT Pharmaceutical dosage forms
(topical, **nitric oxide**-releasing compds. as anti-infective agents)
IT 111-40-0DP, Bis(2-aminoethyl)amine, reaction products with **nitric oxide** and glycolide-lactide copolymer 9002-98-6DP, reaction products with **nitric oxide** 9080-67-5DP, Chloromethylstyrene homopolymer, reaction products with propanediamine and **nitric oxide** **10102-43-9DP, Nitric oxide**, reaction products with aminopolystyrene 23764-31-0DP, n-Propyl 1,3-propanediamine, reaction products with chloromethylstyrene polymer and **nitric oxide** 26780-50-7DP, Glycolide-lactide copolymer, reaction products with bis(aminoethyl)amine-**nitric oxide** adduct
RL: SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(**nitric oxide**-releasing compds. as anti-infective agents)
IT 13826-64-7 89603-57-6 136587-13-8 138475-09-9 146672-58-4 146724-94-9 146724-96-1 147962-06-9 147962-09-2 164013-70-1 164013-71-2
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**nitric oxide**-releasing compds. as anti-infective agents)

L107 ANSWER 12 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:367744 HCAPLUS
DN 122:142577
TI Pharmaceutical composition for treatment of **AIDS**
IN Pelletier, Jacques
PA Fr.
SO Fr. Demande, 4 pp.
CODEN: FRXXBL
DT Patent
LA French
IC ICM A61K035-78
CC **63-6** (Pharmaceuticals)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2706307	A1	19941223	FR 1993-7669	19930618 <--

AB A pharmaceutical compn. for treatment of **AIDS** contains a mixt. of essential oils, an antibiotic, e.g. allicin, a tincture, e.g. arsenicum album, medicinal plants, e.g. roses, and trace elements, e.g. Mg (no data).
ST pharmaceutical compn **AIDS** treatment
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(andropogon citratus; pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cedrus atlantica; pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(centella asiatica; pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(citrus aurantium; pharmaceutical compn. for treatment of **AIDS**
)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(citrus limon; pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coriandrum sativum; pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(eugenia caryophylla; pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(humulus lupulus; pharmaceutical compn. for treatment of **AIDS**
)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(juniperus communis; pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(matricaria chamomilla; pharmaceutical compn. for treatment of **AIDS**)
IT **Acquired immune deficiency syndrome**
(pharmaceutical compn. for treatment of **AIDS**)
IT Antibiotics
Essential oils
Rose
Trace elements, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pinus sibirica; pharmaceutical compn. for treatment of **AIDS**)
IT Birch
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(roots; pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(verbena triphylla; pharmaceutical compn. for treatment of **AIDS**
)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Thuja occidentalis, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(basil, Ocimum basilicum, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cajuput, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(eucalyptus, E. globulus, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lemon balm, pharmaceutical compn. for treatment of **AIDS**)
IT Plant
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medicinal, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(onion, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peppermint, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pot marjoram, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(rosemary, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sandalwood, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(savory, Satureja hortensis, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(savory, Satureja montana, pharmaceutical compn. for treatment of **AIDS**)
IT Essential oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(thyme, Thymus vulgaris, pharmaceutical compn. for treatment of **AIDS**)
IT Pharmaceutical dosage forms
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tinctures, pharmaceutical compn. for treatment of **AIDS**)
IT 523-80-8, Apiol 539-86-6, Allicin 1327-53-3, Arsenicum album 7439-95-4, Magnesium, biological studies 7440-22-4, Silver, biological studies **7440-50-8**, Copper, biological studies 7440-56-4, Germanium, biological studies 7440-57-5, Gold, biological studies
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(pharmaceutical compn. for treatment of **AIDS**)

L107 ANSWER 13 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:362583 HCAPLUS
DN 122:115023
TI Dried hydrogel from hydrophilic-hygroscopic polymer
IN Mcanalley, Bill H.; Boyd, Stephen; Carpenter, Robert H.; Hall, John E.; St. John, Judith; Moore, D. Eric; Weidenbach, Annita; Yates, Kenneth M.
PA Carrington Laboratories, Inc., USA
SO PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61L025-00
ICS A61L015-28; A61L015-60
CC **63-6** (Pharmaceuticals)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9500184	A1	19950105	WO 1994-US7066	19940622 <--
	W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5409703	A	19950425	US 1993-82028	19930624 <--
	CA 2164624	AA	19950105	CA 1994-2164624	19940622 <--
	AU 9471153	A1	19950117	AU 1994-71153	19940622 <--
	EP 705113	A1	19960410	EP 1994-920306	19940622 <--
	R: AT, BE, DE, DK, FR, GB, IT, LU, NL, SE				
	CN 1127474	A	19960724	CN 1994-192541	19940622 <--
	JP 08511964	T2	19961217	JP 1994-503077	19940622 <--
PRAI	US 1993-82028		19930624 <--		

WO 1994-US7066 19940622 <--

AB A therapeutic medical device is described that is comprised of a dried hydrogel of a hydrophilic-hygroscopic polymer, such as an unmodified or modified polymeric carbohydrate, in the form of a solid form. The dried hydrogenl is prepd. by preferably freeze-drying a hydrogel of this polymer in a liq. medium, such as water. The dried hydrogel can be sterilized by radiation or other means so that the sterilized product has a relatively indefinite shelf-life without refrigeration. The resultant dried hydrogel can be transformed into a hydrogel upon absorption of addnl. liq. medium. The described therapeutic device can serve as a dressing for a wound or lesion, drug delivery system, a hemostatic agent and a biol. response modifier. The described therapeutic device enhances the wound healing rate.

ST hydrogel wound healing

IT Antihistaminics
Fungicides and Fungistats
Hemostatics
Microorganism
Neoplasm inhibitors
Vaccines
Virucides and Virustats
Wound healing promoters
(dried hydrogel from hydrophilic-hygroscopic polymer for wound healing)

IT Animal growth regulators
Antibiotics
Polysaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dried hydrogel from hydrophilic-hygroscopic polymer for wound healing)

IT Medical goods
(dressings, dried hydrogel from hydrophilic-hygroscopic polymer for wound healing)

IT 60-54-8, Tetracycline 79-57-2, Oxytetracycline 99-76-3, Methylparaben 121-54-0, Benzethonium chloride 1403-66-3, Gentamycin **7439-89-6**, Iron, biological studies 7439-96-5, Manganese, biological studies 7440-48-4, Cobalt, biological studies 7440-66-6, Zinc, biological studies 9000-30-0, Guar gum 9003-39-8, Plasdone 9004-62-0, Hydroxyethyl cellulose 9005-49-6, Heparin, biological studies 9012-72-0, D-Glucan 37220-17-0, Konjac mannan 110042-95-0, Acemannan
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(dried hydrogel from hydrophilic-hygroscopic polymer for wound healing)

L107 ANSWER 14 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:347104 HCAPLUS
DN 122:256396
TI Stable copper(I) complexes with multidentate ligands as therapeutic agents
IN Pallenberg, Alexander J.; Branca, Andrew; Marschner, Thomas M.; Patt, Leonard M.
PA Procyte Corp., USA
SO PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-30
ICS A61K031-44; A61K031-47
CC **1-4** (Pharmacology)
Section cross-reference(s): 29, 62

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9427594	A2	19941208	WO 1994-US6247	19940602 <--
WO 9427594	A3	19950427		

W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LV, MD, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, UZ, VN
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

CA 2163640 AA 19941208 CA 1994-2163640 19940602 <--
AU 9470517 A1 19941220 AU 1994-70517 19940602 <--
ZA 9403857 A 19950201 ZA 1994-3857 19940602 <--
EP 701439 A1 19960320 EP 1994-919342 19940602 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
ZA 9409336 A 19950808 ZA 1994-9336 19941124 <--
PRAI US 1993-71440 19930602 <--
WO 1994-US6247 19940602 <--

AB Stable copper(I) complexes useful as therapeutic agents comprise a copper(I) ion complexed by a multi-dentate ligand which favors the +1 oxidn. state for copper. The stable copper(I) complexes of the invention are useful as wound healing agents, anti-oxidative agents, anti-inflammatory agents, lipid modulating agents, signal transduction modulating agents, hair growth agents, and anti-viral agents. Exemplary stable copper(I) complexes include neocuproine copper(I) and bathocuproine disulfonic acid copper(I). The synthesis of neocuproine copper(I) complex synthesis is given.

ST copper I complex therapeutic agent; neocuproine copper complex therapeutic agent; bathocuproine copper complex therapeutic agent

IT Lipids, biological studies
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(metab. modulating agents; stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT Signal transduction, biological
(modulating agents; stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT Antioxidants
Inflammation inhibitors
Virucides and Virustats
Wound healing
(stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT Virus, animal
(Epstein-Barr, stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT Virus, animal
(cytomegalo-, stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT Virus, animal
(encephalomyocarditis, stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT Hair preparations
(growth stimulants, stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT Virus, animal
(hepatitis, stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT **Virus, animal**
(**human T-cell leukemia type I**, stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT **Virus, animal**
(**human T-cell leukemia type II**, stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT Virus, animal
(human herpes, stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT **Virus, animal**
(**human immunodeficiency**, stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT Virus, animal
(rhino-, stable copper(I) complexes with multidentate ligands as therapeutic agents)

IT Virus, animal
(rubella, stable copper(I) complexes with multidentate ligands as

therapeutic agents)
IT Virus, animal
(varicella-zoster, stable copper(I) complexes with multidentate ligands as therapeutic agents)
IT 141436-78-4, Protein kinase C
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(inhibitors; stable copper(I) complexes with multidentate ligands as therapeutic agents)
IT 88475-40-5P 108348-22-7P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(stable copper(I) complexes with multidentate ligands as therapeutic agents)
IT **7440-50-8D**, Copper, complexes with bathocuproine disulfonate 47823-58-5 73348-75-1D, complexes with copper
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(stable copper(I) complexes with multidentate ligands as therapeutic agents)

L107 ANSWER 15 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:262708 HCAPLUS
DN 122:45789
TI Thiamine disulfide as a potent inhibitor of human immunodeficiency virus (type-1) production
AU Shoji, Shozo; Furuishi, Kazuchika; Misumi, Shogo; Miyazaki, Tsuyoshi; Kino, Masayasu; Yamataka, Kazunobu
CS Fac. Pharmaceutical Sci., Kumamoto Univ., Kumamoto, 862, Japan
SO Biochem. Biophys. Res. Commun. (**1994**), 205(1), 967-75
CODEN: BBRCA9; ISSN: 0006-291X
DT Journal
LA English
CC **1-5** (Pharmacology)
AB Thiol and disulfide compds. were tested as an anti-**HIV** drug against transactivator (Tat)-mediated transactivation of **HIV**-1. Of all the compds. tested, thiamine disulfide, .alpha.-lipoic acid, and N-acetylcysteine significantly depressed **HIV**-1 Tat activity. Thiamine disulfide alone in these compds. possessing anti-**HIV** -Tat activity markedly inhibited prodn. of progeny **HIV**-1 in acute and chronic **HIV**-1-infected CEM at nontoxic concns. of 500.apprx.1000 .mu.M. Thiamine disulfide (500 .mu.M) blocked 99.7% of **HIV**-1 prodn. after 96 h culture in acute **HIV**-1 (LAV-1) infection (m.o.i. = 0.002), whereas it inhibited 90.apprx.98% of **HIV**-1 prodn. in chronic-infected cells (CEM/LAV-1, H9/MN, and Molt-4/IIIB). The results suggest that thiamine disulfide may be important for **AIDS** chemotherapy.
ST **AIDS** thiamine disulfide HIV1; thiol disulfide antiviral **AIDS**
IT **Acquired immune deficiency syndrome**
Virucides and Virustats
(thiamine disulfide as **HIV**-1 inhibitor for **AIDS** therapy)
IT **Virus, animal**
(**human immunodeficiency** 1, thiamine disulfide as **HIV**-1 inhibitor for **AIDS** therapy)
IT **67-16-3**, Thiamine disulfide 616-91-1, N-Acetylcysteine 1200-22-2, .alpha.-Lipoic acid
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(thiamine disulfide as **HIV**-1 inhibitor for **AIDS** therapy)

L107 ANSWER 16 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:240029 HCAPLUS
DN 122:38833

TI Superparamagnetic particles for use in diagnosis, immunity enhancement, and tumor treatment
IN Pilgrimm, Herbert
PA Silica Gel Ges.m.b.H., Germany
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K009-50
ICS A61K049-00
CC **63-6** (Pharmaceuticals)
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9421240	A2	19940929	WO 1994-DE314	19940317 <--
	WO 9421240	A3	19941013		
	W: JP, NO, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 4309333	A1	19940922	DE 1993-4309333	19930317 <--
	DE 4407338	A1	19950907	DE 1994-4407338	19940302 <--
	EP 689430	A1	19960103	EP 1994-912435	19940317 <--
	EP 689430	B1	19970813		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	JP 08508721	T2	19960917	JP 1994-520523	19940317 <--
PRAI	DE 1993-4309333	A	19930317 <--		
	DE 1994-4407338	A	19940302 <--		
	WO 1994-DE314	W	19940317 <--		

AB New superparamagnetic particles useful in medicine for destroying tumors, increasing immunity, and diagnosing conditions are disclosed. Very small superparamagnetic single-domain particles are aggregated and protected against further aggregation by chem. bonding of a reactive stabilizer on the surface of the superparamagnetic particles. These particles thus consist of stable, decomposable aggregates with particle size 10-1000 nm and a defined behavior in a magnetic field. The aggregates consist of several small superparamagnetic single-domain particles of Fe oxide, Fe mixed oxide, or Fe (particle size 3-20 nm) bearing on their surface chem. bound phosphates (including phosphate, diphosphate, polyphosphate, thiophosphate, or phosphonate group-contg. polyalkylene glycols, phosphate group-contg. nucleotides and their oligomers and polymers, and phosphate group-contg. carbohydrates). Both the superparamagnetic aggregates and the reactive stabilizer may be active substances. Thus, a suspension of Fe3O4 particles (prepd. by acidification of a soln. of FeCl2 and FeCl3) was treated with estramustine and bis(.omega.-methoxypolyethylene glycol) phosphate and purified by magnetic pptn. to provide an agent for magnetic drug targeting of prostate carcinoma.

ST superparamagnetic particle diagnosis tumor treatment; immunostimulation superparamagnetic particle
IT Fusion, biological
(-promoting agents, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)
IT Polyoxyalkylenes, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(derivs., stabilizers; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)
IT Rare earth oxides
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(iron; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)
IT Pharmaceuticals
(phosphate group- and phosphonate group-contg., superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)
IT Nucleotides, biological studies

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilizers; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Algae
Blood platelet
Chelating agents
Erythrocyte
Fungi
Immunostimulants
Leukocyte
Lymphocyte
Microorganism
Monocyte
Organelle
Pancreatic islet of Langerhans
Virus, animal
(superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Agglutinins and Lectins
Alkaloids, biological studies
Alkylating agents, biological
Amino acids, biological studies
Animal growth regulators
Antibiotics
Antibodies
Antigens
Antiserums
Catecholamines
Deoxyribonucleic acids
Desmodus
Enzymes
Haptens
Hormones
Interferons
Neoplasm inhibitors
Porphyrins
Ribonucleic acids
Surfactants
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Diagnosis
Particles
(superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(A, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(G, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Nutrients
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Toxins
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(endo-, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(endotoxin-binding, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Leukocyte
(granulocyte, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Lymphokines and Cytokines
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interleukins, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Lymphokines and Cytokines
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lymphotoxin, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Lymphokines and Cytokines
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(macrophage-activating factor, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neoplasm-inhibiting, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Nucleotides, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oligo-, stabilizers; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Carbohydrates and Sugars, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphates, stabilizers; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Nucleotides, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(poly-, stabilizers; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Carboxylic acids, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(poly-, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Glycoproteins, specific or class
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(selectins, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

IT Magnetic substances
(superpara-, particles; superparamagnetic particles for use in

diagnosis and immunity enhancement and tumor treatment)
IT Lymphokines and Cytokines
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tumor necrosis factor, superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)
IT 154-87-0, Cocarboxylase 1344-09-8, Sodium silicate 4420-74-0, 3-Mercaptopropyltrimethoxysilane 11138-49-1, Sodium aluminate 24991-55-7D, polyphosphates 63008-89-9 70700-21-9 70700-23-1 89319-19-7D, silanetriol derivs. 159097-81-1 159122-08-4
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilizer; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)
IT 50-07-7, Mitomycin C 2998-57-4, Estramustine 9001-91-6D, Plasminogen, complex with streptokinase activator 9002-01-1, Streptokinase 9011-18-1, Sodium dextran sulfate 9039-53-6, Urokinase 14596-37-3, Phosphorus-32, biological studies 23214-92-8, Doxorubicin **37205-61-1**, Proteinase inhibitor 56390-09-1, Epirubicin hydrochloride 81669-57-0, Anistreplase 139639-23-9, Tissue plasminogen activator
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(superparamagnetic particle-immobilized; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)
IT 1317-61-9P, Iron oxide (Fe3O4), biological studies
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)
IT **7439-89-6**, Iron, biological studies **7439-89-6D**, Iron, mixed oxides 12009-00-6, Barium iron oxide (BaFe2O4) 12018-79-0, Copper iron oxide (CuFe2O4) 12023-25-5, Iron strontium oxide (Fe2SrO4) 12042-18-1, Aluminum iron oxide (AlFeO3) 12052-28-7, Cobalt iron oxide (CoFe2O4) 12063-10-4, Iron manganese oxide (Fe2MnO4) 12063-19-3, Iron zinc oxide (Fe2ZnO4) 12068-86-9, Iron magnesium oxide (Fe2MgO4) 12443-11-7, Chromium iron oxide (CrFeO3) 159845-80-4, Beryllium iron oxide (BeFe2O4)
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)
IT 1309-37-1P, Iron oxide (Fe2O3), biological studies
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(.gamma.-; superparamagnetic particles for use in diagnosis and immunity enhancement and tumor treatment)

L107 ANSWER 17 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:235048 HCAPLUS
DN 122:17227
TI Immediate-release pharmaceutical dosage forms of poorly soluble drugs
IN Remon, Jean Paul
PA Universiteit Gent Laboratorium Voor Farmaceutische Technologie, Belg.
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K009-16
CC **63-6** (Pharmaceuticals)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 9423700 A1 19941027 WO 1994-BE29 19940421 <--
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, UZ, VN
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
BE 1006990 A5 19950207 BE 1993-407 19930422 <--
CA 2161016 AA 19941027 CA 1994-2161016 19940421 <--
AU 9464215 A1 19941108 AU 1994-64215 19940421 <--
EP 695172 A1 19960207 EP 1994-911799 19940421 <--
EP 695172 B1 19971217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
JP 09500093 T2 19970107 JP 1994-522562 19940421 <--
JP 2960169 B2 19991006
AT 161174 E 19980115 AT 1994-911799 19940421 <--
ES 2113095 T3 19980416 ES 1994-911799 19940421 <--
PRAI BE 1993-407 19930422 <--
WO 1994-BE29 19940421 <--

AB A solid prepn. for a substantially immediate release of an active agent with low or very low soly., which contains the active agent dissolved in a solubilizer, said dissolved active agent being contained in solid particles which are agglomerated into a system of agglomerated particles which is not a matrix forming system. Thus, 5 g nifedipine (I) was dissolved in 95 g of Cetiol HE (PEG-7 glyceryl cocoate) at 50.degree. and the soln. was mixed with 375 g of water and 375 g microcryst. cellulose (Avicel PH 101). The above mixt. was then extruded and spheronized to obtain pellets which were dried at 50.degree.. In a dissoln. study of above pellets 50% of I was released in 1 h.

ST immediate release solid pharmaceutical soly; nifedipine immediate release pellet Cetiol HE

IT Antiarrhythmics
Anticoagulants and Antithrombotics
Anticonvulsants and Antiepileptics
Bronchodilators
Fungicides and Fungistats
Immunosuppressants
Pharmaceutical dosage forms
Solubilizers
Surfactants
Tuberculostatics
Virucides and Virustats
(immediate-release pharmaceutical dosage forms of poorly sol. drugs)

IT Fatty acids, biological studies
Oils
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immediate-release pharmaceutical dosage forms of poorly sol. drugs)

IT Hormones
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immediate-release solid pharmaceutical dosage forms of poorly sol. drugs)

IT Therapeutics
(chemo-, immediate-release pharmaceutical dosage forms of poorly sol. drugs)

IT Glycerides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coco mono-, ethoxylated, immediate-release pharmaceutical dosage forms of poorly sol. drugs)

IT Pharmaceutical natural products
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(digitalis, immediate-release pharmaceutical dosage forms of poorly sol. drugs)

IT Alcohols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fatty, immediate-release pharmaceutical dosage forms of poorly sol. drugs)

IT Castor oil

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydrogenated, ethoxylated, immediate-release pharmaceutical dosage forms of poorly sol. drugs)

IT Solvents
(polar, immediate-release pharmaceutical dosage forms of poorly sol. drugs)

IT 50-02-2, Dexamethasone 50-02-2D, Dexamethasone, esters 50-06-6, Phenobarbital, biological studies 50-23-7, Hydrocortisone 50-23-7D, Hydrocortisone, esters 50-24-8, Prednisolone 50-24-8D, Prednisolone, esters 50-33-9, Phenylbutazone, biological studies 50-47-5, Desipramine 50-49-7, Imipramine 50-52-2, Thioridazine 50-53-3, Chlorpromazine, biological studies 50-55-5, Reserpine 50-78-2, Acetylsalicylic acid 51-52-5, Propylthiouracil 52-01-7, Spironolactone 52-53-9, Verapamil 52-86-8, Haloperidol 53-03-2, Prednisone 53-03-2D, Prednisone, esters 53-06-5, Cortisone 53-06-5D, Cortisone, esters 53-33-8, Paramethasone 53-33-8D, Paramethasone, esters 53-86-1, Indomethacine 54-05-7, Chloroquine 54-31-9, Furosemide 55-65-2, Guanethidine 56-04-2, Methylthiouracil 57-27-2, Morphine, biological studies 57-42-1, Pethidine 57-63-6, Ethinylestradiol 57-66-9, Probenecid 58-18-4, Methyltestosterone 58-25-3, Chlordiazepoxide 58-27-5, Menadione 58-54-8, Ethacrynic acid 58-74-2, Papaverine 58-93-5, Hydrochlorothiazide 58-94-6, Chlorothiazide 59-66-5, Acetazolamide 59-92-7, Levodopa, biological studies 61-68-7, Mefenamic acid 63-42-3, Lactose 63-74-1, Sulfonamide 69-23-8, Fluphenazine 71-58-9, Medroxyprogesterone acetate 72-44-6, Methaqualone 72-69-5, Nortriptyline 73-48-3 76-73-3, Secobarbital 77-36-1, Chlortalidone 82-92-8, Cyclizine 84-80-0, Phytomenadione 91-33-8, Benzthiazide **97-77-8**, Disulfiram 113-15-5, Ergotamine 113-59-7, Chlorprothixene 117-89-5, Trifluoperazine 120-97-8, Diclofenamide 124-94-7, Triamcinolone 124-94-7D, Triamcinolone, esters 125-40-6, Secbutabarbital 127-31-1, Fludrocortisone 128-62-1, Noscapine 129-20-4, Oxyphenbutazone 130-95-0, Quinine 133-67-5, Trichloromethiazide 135-09-1, Hydroflumethiazide 146-54-3, Trifluopromazine 298-81-7, 8-Methoxypsoralen 303-49-1, Clomipramine 315-30-0, Allopurinol 346-18-9, Polythiazide 359-83-1, Pentazocine 364-62-5, Metoclopramide 364-98-7, Diazoxide 378-44-9, Betamethasone 378-44-9D, Betamethasone, esters 396-01-0, Triamteren 434-07-1, Oxymetholone 439-14-5, Diazepam 447-41-6, Buphenine 452-35-7, Ethoxzolamide 469-62-5, Dextropropoxyphene 484-23-1, Dihydralazine 525-66-6, Propranolol 530-78-9, Flufenamic acid 536-21-0, Norfenefrine 599-79-1, Sulfasalazine 637-07-0, Clofibrate 804-10-4, Carbocromen 846-49-1, Lorazepam 1668-19-5, Doxepine 2609-46-3, Amiloride 3313-26-6, Thiothixene 3562-84-3, Benzbromarone 3575-80-2, Melperone 4093-35-0, Bromopride 4205-90-7, Clonidine 6452-71-7, Oxprenolol **7439-89-6D**, Iron, salts 7439-93-2D, Lithium, salts 7439-95-4D, Magnesium, salts 9004-32-4, Sodium carboxymethyl cellulose 10418-03-8, Stanozolol 11032-41-0, Codergocrine 13392-18-2, Fenoterol 14556-46-8, Bupranolol 15307-86-5, Diclofenac 15676-16-1, Sulpiride 15687-27-1, Ibuprofen 16662-47-8, Gallopamil 19216-56-9, Prazosin 21829-25-4, Nifedipine 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22664-55-7, Metipranolol 24815-24-5, Rescinnamine 25322-68-3, Peg 25322-68-3D, Peg, derivs. 25614-03-3, Bromocriptine 25717-80-0, Molsidomine 25812-30-0, Gemfibrozil 27848-84-6, Nicergoline 28109-92-4, Methylxanthine 28797-61-7, Pirenzepine 28860-95-9, Carbidopa 29122-68-7, Atenolol 36330-85-5, Fenbufen 36894-69-6, Labetalol 37148-27-9, Clenbuterol 38194-50-2, Sulindac 42399-41-7, Diltiazem 51481-61-9, Cimetidine 52468-60-7, Flunarizine 57808-66-9, Domperidone
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(immediate-release pharmaceutical dosage forms of poorly sol. drugs)

IT 511-12-6, Dihydroergotamine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immediate-release solid pharmaceutical dosage forms poorly sol. drugs)

IT 9004-34-6, Cellulose, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(microcryst.; immediate-release pharmaceutical dosage forms of poorly sol. drugs)

L107 ANSWER 18 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1994:686597 HCAPLUS
DN 121:286597
TI Preparation of superparamagnetic particles for diagnostic and therapeutic use
IN Pilgrimm, Herbert Dr
PA Silica gel GmbH Adsorptions-Technik, Germany
SO Ger. Offen., 13 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM A61K049-00
ICS H01F001-28; C07F009-02; C07H021-04
ICA G01N024-08; C12N013-00
CC **63-6** (Pharmaceuticals)
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4309333	A1	19940922	DE 1993-4309333	19930317 <--
	DE 4407338	A1	19950907	DE 1994-4407338	19940302 <--
	WO 9421240	A2	19940929	WO 1994-DE314	19940317 <--
	WO 9421240	A3	19941013		
	W: JP, NO, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 689430	A1	19960103	EP 1994-912435	19940317 <--
	EP 689430	B1	19970813		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	JP 08508721	T2	19960917	JP 1994-520523	19940317 <--
	AT 156706	E	19970815	AT 1994-912435	19940317 <--
	DE 4427821	A1	19960201	DE 1994-4427821	19940727 <--
PRAI	DE 1993-4309333	A	19930317 <--		
	DE 1994-4407338	A	19940302 <--		
	WO 1994-DE314	W	19940317 <--		

AB Superparamagnetic single-domain particles of Fe, Fe oxide, or mixed Fe oxides (particle size 3-20 nm) are prepd. which bear surface-bound polyalkylene glycol (thio)phosphates or (thio)phosphonates, nucleotide or oligonucleotide phosphates, or carbohydrate phosphates contg. functional groups for attachment to pharmaceuticals or tissue-specific binding substances (e.g. antigen, antibody, nucleic acid, protein A, lectin). These particles may be used in combination with a magnetic field for destruction of tumors and stimulation of immune function (magnetic drug targeting), and for diagnosis.
ST superparamagnetic iron oxide particle diagnosis therapeutic
IT Rare earth oxides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(iron-contg.; superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT Diagnosis
Magnetic substances
Particles
(superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT Amino acids, biological studies
Catecholamines
Nucleotides, biological studies
Porphyrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT Algae
Blood platelet
Cell
Erythrocyte
Fungi
Lymphocyte

Microorganism
Monocyte
Organelle
Pancreatic islet of Langerhans
Virus
(superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Agglutinins and Lectins
Alkaloids, biological studies
Alkylating agents, biological
Animal growth regulators
Antibiotics
Antibodies
Antigens
Antiserums
Deoxyribonucleic acids
Enzymes
Haptens
Hormones
Interferons
Ribonucleic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(A, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(G, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Nutrients
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Toxins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(endo-, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(endotoxin-binding, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(esters, (thio)phosphate and (thio)phosphonate esters; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Leukocyte
(granulocyte, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Lymphokines and Cytokines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interleukins, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Lymphokines and Cytokines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lymphotoxin, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Lymphokines and Cytokines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(macrophage-activating factor, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)

IT Nucleotides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oligo-, superparamagnetic particle prepn. for diagnostic and

therapeutic use)
IT Carbohydrates and Sugars, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphates, superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT Carboxylic acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymers, superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT Glycoproteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(selectins, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT Lymphokines and Cytokines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tumor necrosis factor, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tumor-inhibiting, superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT 70700-21-9 159097-81-1
RL: RCT (Reactant)
(superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT 1317-61-9, Iron oxide (Fe3O4), biological studies 1332-37-2, Iron oxide, biological studies **7439-89-6**, Iron, biological studies **7439-89-6D**, Iron, mixed oxides 11129-48-9, Zinc ferrite 11138-11-7, Barium iron oxide 12018-79-0, Copper iron oxide 12052-28-7, Cobalt iron oxide 12063-10-4, Manganese iron oxide 12063-19-3, Zinc ferrite 12627-93-9, Strontium iron oxide 12678-40-9, Aluminum iron oxide 12737-27-8, Chromium iron oxide 12789-35-4, Magnesium iron oxide 159101-50-5, Beryllium iron oxide
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT 50-07-7, Mitomycin C 154-87-0, Cocarboxylase 2998-57-4 9001-91-6D, Plasminogen, streptokinase complexes 9002-01-1, Streptokinase 9002-01-1D, Streptokinase, plasminogen complexes 9004-74-4D, polyphosphate ester 9039-53-6, Urokinase 14596-37-3D, Phosphorus-32, compds., biological studies 25322-68-3D, derivs., (thio)phosphate and (thio)phosphonate esters 25322-69-4D, Poly(propylene glycol), derivs., (thio)phosphate and (thio)phosphonate esters **37205-61-1**, Proteinase inhibitor 56390-09-1, Epirubicin hydrochloride 66198-48-9, Desmodur 70700-23-1 81669-57-0, Anistreplase 106392-12-5D, Ethylene glycol/propylene glycol block copolymer, derivs., (thio)phosphate and (thio)phosphonate esters 139639-23-9, Tissue-type plasminogen activator 159122-08-4
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(superparamagnetic particle-conjugated; superparamagnetic particle prepn. for diagnostic and therapeutic use)
IT 1309-37-1, Ferric oxide, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(.gamma.-phase; superparamagnetic particle prepn. for diagnostic and therapeutic use)

L107 ANSWER 19 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1994:655644 HCAPLUS
DN 121:255644
TI Indole derivatives as inhibitors of **HIV** reverse transcriptase
IN Williams, Theresa M.; Ciccarone, Terrence M.; Saari, Walfred S.; Wai, John S.; Greenlee, William J.; Balani, Suresh K.; Goldman, Mark E.; Hoffman, Jacob M. Jr; Lumma, William C. Jr; et al.
PA Merck and Co., Inc., USA; Theoharides, Sharon, A.
SO PCT Int. Appl., 144 pp.
CODEN: PIXXD2
DT Patent
LA English

IC ICM C07D209-30
ICS A61K031-40
CC 27-11 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): **1, 63**
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9419321	A1	19940901	WO 1994-US1694	19940215	<--
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	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
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	BR 9405737	A	19951205	BR 1994-5737	19940215	<--
	EP 686148	A1	19951213	EP 1994-909663	19940215	<--
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	PL 175788	B1	19990226	PL 1994-310410	19940215	<--
	US 5527819	A	19960618	US 1995-488957	19950607	<--
	FI 9503954	A	19950823	FI 1995-3954	19950823	<--
	NO 9503308	A	19951024	NO 1995-3308	19950823	<--

PRAI US 1993-21925 19930224 <--
US 1991-756013 19910906 <--
US 1992-832260 19920207 <--
US 1992-866765 19920409 <--
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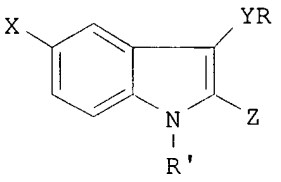
US 1994-274101 19940711 <--
OS MARPAT 121:255644
GI



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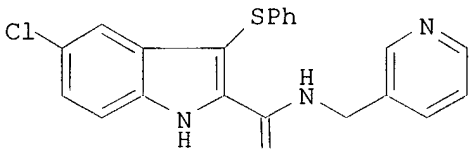


II

AB Novel indole compds. inhibit **HIV** reverse transcriptase (**HIV** RTR), and are useful in the prevention or treatment of infection by **HIV** and in the treatment of **AIDS**. The described compds. include I [X = H, Cl, F, Br, NO2, cyano, OH, alkoxy, (di)(alkyl)amino, alkylamido, alkylsulfonamido; Y = S, SO, SO2, O; R = (un)substituted alkyl, aryl, heterocyclyl, dialkylamino (except when Y = O); Z = (un)substituted CONH2, CSNH2, alkanoyl, alkoxycarbonyl, aminomethyl, cyano, etc.; R' = H, CHO, acyl, (un)substituted CONH2] and their salts and esters. Approx. 180 I are prepd., listed, and/or claimed. For example, 5-chloroindole-2-carboxylic acid was treated with excess NaH in DMF and then with PhSSPh to give its 3-(phenylthio) deriv., which was amidated with 3-(aminomethyl)pyridine using BOP reagent and Et3N in DMF to give title compd. II, a preferred compd. I inhibited **HIV** RTR in vitro with IC50 of 3-35 nM for the most preferred compds. I also inhibited viral spread of **HIV** in cell cultures, with 95% inhibitory concns. (CIC95) of 3-400 nM for preferred compds.

ST indole prepn inhibitor **HIV** reverse transcriptase; antiviral indole prepn; **AIDS** treatment indole prepn

IT **Virucides and Virustats**
(prepn. of indole derivs. as inhibitors of **HIV** reverse transcriptase)

IT **Acquired immune deficiency syndrome**
(treatment; prepn. of indole derivs. as inhibitors of **HIV**

reverse transcriptase)

IT **Acquired immune deficiency syndrome**
(-related complex, treatment; prepn. of indole derivs. as inhibitors of **HIV** reverse transcriptase)

IT **Virus, animal**
(**human immunodeficiency**, infection, treatment; prepn. of indole derivs. as inhibitors of **HIV** reverse transcriptase)

IT 79-37-8DP, Oxalyl chloride, reaction products with indolecarboxylic acid derivs. 14204-24-1P, N-(Phenylthio)succinimide 24621-70-3P, 2-(Hydroxymethyl)indole 72716-86-0P, 4-Cyano-2-methoxypyridine 118427-37-5P, Ethyl 3-phenylthio-5-chloroindole-2-carboxylate 118427-38-6P, 5-Chloro-3-phenylthioindole-2-carboxylic acid 124312-73-8P, 2-Aminomethyl-1-methylimidazole 143232-22-8P, 3-(Phenylthio)indole-2-carboxaldehyde 143232-23-9P, 2-(Phenylthiomethyl)indole 143232-24-0P, 3-(Phenylthio)-2-(phenylthiomethyl)indole 143232-25-1P, N-Methoxy-N-methyl-3-(phenylthio)indole-2-carboxamide 148899-66-5P, N-Methoxy-N-methyl-5-chloro-3-(phenylthio)indole-2-carboxamide 148900-64-5P, 3-(Phenylthio)indole-2-carboxamide 148900-65-6P, 2-(Aminomethyl)-3-(phenylthio)indole 148900-66-7P, N-Methoxy-N-methylfuran-3-carboxamide 148900-68-9P 148900-69-0P, 4-(Aminomethyl)-2-methoxypyridine 158561-62-7P 158561-63-8DP, dimeric acid chloride deriv. 158561-63-8P 158561-64-9P 158561-65-0P 158561-66-1P 158561-80-9P, 5-Chloro-3-phenylsulfinylindole-2-carboxylic acid 158561-81-0P, Ethyl 3-phenylsulfonyl-5-chloroindole-2-carboxylate 158561-82-1P, 2-Carboethoxy-5-chloro-1-phenylsulfonylindole-3-sulfonic acid 158561-83-2P, 2-Carboethoxy-5-chloro-1-phenylsulfonylindole-3-cyclopropylsulfonamide 158561-84-3P, 2-Carboethoxy-5-chloro-1-phenylsulfonylindole-3-sulfonyl chloride 158561-85-4P 158561-86-5P, 2-Carboethoxy-5-chloro-1-phenylsulfonylindole-3-phenylsulfonamide 158561-87-6P 158561-89-8DP, dimeric acid chloride deriv.
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(intermediate; prepn. of indole derivs. as inhibitors of **HIV** reverse transcriptase)

IT 26868-66-6P, Ethyl 5-chloro-3-benzylindole-2-carboxylate 56366-45-1P 116757-24-5P 118427-37-5P 143246-73-5P, 2-Phenylsulfinylmethyl-3-phenylthioindole 148472-83-7P 148473-16-9P, 5-Chloro-3-phenylthioindole-2-carboxamide 148473-17-0P 148473-18-1P 148473-19-2P 148473-20-5P, 5-Chloro-3-phenylsulfinylindole-2-carboxamide 148473-24-9P, Methyl 5-chloro-3-phenylthioindole-2-carboxylate 148885-71-6P 148885-73-8P 148885-74-9P 148899-62-1P 148899-63-2P 148899-64-3P 148899-65-4P 148899-66-5P 148899-67-6P 148899-68-7P 148899-69-8P 148899-70-1P 148899-71-2P 148899-72-3P 148899-73-4P 148899-76-7P 148899-77-8P 148899-78-9P 148899-79-0P 148899-80-3P 148899-81-4P 148899-82-5P, N-Ethyl-5-chloro-3-phenylthioindole-2-carboxamide 148899-83-6P 148899-84-7P 148899-85-8P 148899-86-9P 148899-87-0P 148899-88-1P 148899-89-2P 148899-90-5P 148899-91-6P 148899-92-7P 148899-93-8P 148899-94-9P 148899-96-1P 148899-97-2P 148899-98-3P 148899-99-4P 148900-01-0P 148900-03-2P 148900-04-3P 148900-05-4P 148900-06-5P 148900-07-6P 148900-09-8P 148900-10-1P 148900-11-2P 148900-12-3P 148900-13-4P 148900-15-6P 148900-16-7P 148900-18-9P, N-Benzyl-3-phenylsulfonyl-5-chloroindole-2-carboxamide 148900-19-0P 148900-21-4P 148900-22-5P 148900-23-6P 148900-24-7P 148900-25-8P 148900-30-5P 148900-36-1P 148900-37-2P 148900-38-3P 148900-39-4P, 2-Phenylcarboxamidomethyl-3-phenylthioindole 148900-40-7P 148900-41-8P 148900-42-9P 148900-43-0P 148900-44-1P 148900-45-2P 148900-46-3P 148900-47-4P, 2-Benzoyl-5-chloro-3-phenylthioindole 148900-48-5P 148900-49-6P 148900-50-9P 148900-51-0P 148900-52-1P 148900-53-2P 148900-54-3P 148900-55-4P 148900-56-5P 148900-57-6P 148900-58-7P 148900-59-8P 148900-60-1P 148900-61-2P 148900-62-3P, 5-Chloro-3-phenylthioindole-2-thiocarboxamide 158560-96-4P 158560-97-5P 158560-98-6P 158560-99-7P 158561-00-3P 158561-01-4P 158561-02-5P 158561-03-6P 158561-04-7P 158561-05-8P 158561-06-9P 158561-07-0P 158561-08-1P 158561-09-2P 158561-10-5P 158561-11-6P 158561-12-7P 158561-13-8P 158561-14-9P 158561-15-0P 158561-16-1P

158561-17-2P 158561-18-3P 158561-19-4P 158561-20-7P 158561-21-8P
158561-22-9P 158561-23-0P 158561-24-1P 158561-25-2P 158561-26-3P
158561-27-4P 158561-28-5P 158561-29-6P 158561-30-9P 158561-31-0P
158561-32-1P 158561-33-2P 158561-34-3P 158561-35-4P 158561-36-5P
158561-37-6P 158561-38-7P 158561-39-8P 158561-40-1P 158561-41-2P
158561-42-3P 158561-43-4P 158561-44-5P 158561-45-6P 158561-46-7P
158561-47-8P 158561-48-9P 158561-49-0P 158561-50-3P 158561-51-4P
158561-52-5P 158561-53-6P 158561-54-7P 158561-55-8P 158561-56-9P
158561-57-0P 158561-58-1P 158561-59-2P 158561-60-5P 158561-61-6P
158561-69-4P, 5-Chloro-3-phenylsulfonylindole-2-thiocarboxamide
158561-70-7P, N-Ethyl-3-phenylsulfonyl-5-chloroindole-2-carboxamide
158561-71-8P, N-Cyclopropyl-5-chloro-3-phenylsulfonylindole-2-carboxamide
158561-72-9P 158561-73-0P 158561-74-1P 158561-75-2P,
3-Phenylsulfonyl-5-methylsulfonylaminoindole-2-carboxamide 158561-76-3P,
N-Cyano-5-chloro-3-phenylsulfonylindole-2-carboxamidamide 158561-77-4P,
N-Cyclobutyl-5-chloro-3-phenylsulfonylindole-2-carboxamide 158561-78-5P,
N-Cyclopropyl-5-chloro-3-phenylsulfinylindole-2-carboxamide 158647-93-9P
158647-94-0P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of indole derivs. as inhibitors of **HIV** reverse transcriptase)

IT **9068-38-6**
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(prepn. of indole derivs. as inhibitors of **HIV** reverse transcriptase)

IT 51-45-6, Histamine, reactions 62-53-3, Aniline, reactions 75-04-7, Ethylamine, reactions 98-88-4, Benzoyl chloride 100-46-9, Benzylamine, reactions 100-59-4, Phenylmagnesium chloride 100-61-8, reactions 103-71-9, Phenyl isocyanate, reactions 108-98-5, Thiophenol, reactions 109-85-3, 2-Methoxyethylamine 124-63-0, Methanesulfonyl chloride 128-09-6, N-Chlorosuccinimide 141-43-5, reactions 462-08-8, 3-Aminopyridine 488-93-7, Furan-3-carboxylic acid 530-62-1, Carbonyldiimidazole 617-89-0, 2-(Aminomethyl)furan 644-42-8, 3-Methylhistamine 765-30-0, Cyclopropylamine 882-33-7, Phenyl disulfide 1142-19-4, Bis(4-chlorophenyl) disulfide **2127-03-9**, Bis(2-pyridinyl) disulfide 2393-23-9, 4-Methoxybenzylamine 2516-47-4, Cyclopropylmethylamine **2645-22-9**, Bis(4-pyridinyl) disulfide 2799-16-8, 2(R)-Hydroxy-1-propylamine 3731-52-0, 3-(Aminomethyl)pyridine 3731-53-1, 4-(Aminomethyl)pyridine 3770-50-1, Ethyl indole-2-carboxylate 3886-69-9, (R)-(+)-.alpha.-Methylbenzylamine 4597-87-9, Methyl(2-Pyridyl)amine 4792-67-0, Ethyl 5-chloroindole-2-carboxylate 5036-48-6, 1-(3-Aminopropyl)imidazole 5071-96-5, 3-Methoxybenzylamine 6320-03-2, 2-Chlorothiophenol 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 6850-57-3, 2-Methoxybenzylamine 7664-41-7, Ammonia, reactions 10517-21-2, 5-Chloroindole-2-carboxylic acid 13258-63-4, 4-(2-Aminoethyl)pyridine 19742-92-8, Bis(3-chlorophenyl) disulfide 20062-51-5, 1-Methylimidazole-2-carboxamide 20362-54-3, Di(2-thiazolyl) disulfide 22600-77-7, 2-(Aminomethyl)imidazole dihydrochloride 24367-50-8, Bis(3-pyridinyl) disulfide 26177-43-5, 3-Nitrobenzylamine hydrochloride 33252-30-1, 2-Chloro-4-cyanopyridine 34231-22-6, 3-(Hydroxymethyl)benzylamine 56366-45-1, 2-Methyl-3-(phenylthio)indole 56613-81-1, (S)-(+)-2-Phenylglycinol 61747-29-3, Bis(1-methylimidazol-2-yl) disulfide 69385-30-4, 2,6-Difluorobenzylamine 73604-31-6, 3-Hydroxybenzylamine 116757-25-6, 3-(Phenylthio)indole-2-carboxylic acid 137897-99-5, Bis(3,5-dichlorophenyl) disulfide 144900-57-2, 2-Chloro-4-(aminomethyl)pyridine 158561-67-2 158561-88-7, 2-Carboethoxy-5-chloro-1-phenylsulfonylindole 158561-89-8, 3-Phenylsulfonyl-5-chloroindole-2-carboxylic acid 158561-90-1, 2-Aminomethyl-1-ethylimidazole
RL: RCT (Reactant)
(reactant; prepn. of indole derivs. as inhibitors of **HIV** reverse transcriptase)

IT 158561-68-3DP, dimeric acid chloride deriv.
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

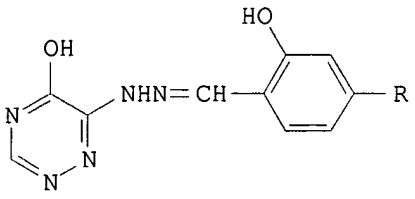
(reactant; prepn. of indole derivs. as inhibitors of **HIV** reverse transcriptase)

L107 ANSWER 20 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1994:506122 HCAPLUS
DN 121:106122
TI Conjugation of recombinant reverse transcriptase of **HIV**-1 to .beta.-D-galactosidase from Escherichia coli for ultrasensitive enzyme immunoassay (immune complex transfer enzyme immunoassay) of anti-**HIV**-1 IgG
AU Hashinaka, Kazuya; Hashida, Seiichi; Saitoh, Atsushi; Nakata, Atsuo; Shinagawa, Hideo; Oka, Shinichi; Shimada, Kaoru; Ishikawa, Eiji
CS Department of Biochemistry, Medical College of Miyazaki, Kiyotake, Miyazaki, 889-16, Japan
SO J. Immunol. Methods (**1994**), 172(2), 179-87
CODEN: JIMMBG; ISSN: 0022-1759
DT Journal
LA English
CC **15-1** (Immunochemistry)
AB Recombinant reverse transcriptase (RT) of **HIV**-1 was conjugated to .beta.-D-galactosidase from Escherichia coli in 3 different ways. **Maleimide** groups were introduced into .beta.-D-galactosidase mols. using N,N'-o-phenylenedimaleimide in the absence (method I) or presence (method II) of N-ethylmaleimide or into .beta.-D-galactosidase mols., which had been treated with excess of 4,4'-dithiodipyridine to block thiol groups, using N-succinimidyl-6-maleimidohexanoate (method III). Subsequently, the **maleimide** groups were reacted with thiol groups introduced into recombinant RT mols. using N-succinimidyl-S-acetylmercaptoacetate. The conjugates were tested by a sensitive enzyme immunoassay (immune complex transfer enzyme immunoassay). The immune complex consisting of 2,4-dinitrophenyl-bovine serum albumin-recombinant RT conjugate, anti-**HIV**-1 IgG, and recombinant RT-.beta.-D-galactosidase conjugate was captured by polystyrene beads coated with (anti-2,4-dinitrophenyl group) IgG, eluted with N.epsilon.-2,4-dinitrophenyl-L-lysine and transferred to polystyrene beads coated with (anti-human IgG .gamma. chain) IgG. The conjugate prepd. by method III, which showed the least polymn., the least loss of the specific enzyme activity, and the lowest nonspecific binding, improved the sensitivity of the enzyme immunoassay for anti-**HIV**-1 IgG approx. 30-fold compared with RT-horseradish peroxidase conjugate.
ST conjugate reverse transcriptase galactosidase IgG **HIV**; enzyme immunoassay **HIV** IgG conjugate
IT Blood analysis
(IgG to **HIV**-1 detn. in, by enzyme immunoassay, conjugation of virus reverse transcriptase with Escherichia coli galactosidase for)
IT Immunoglobulins
RL: BIOL (Biological study)
(G, to **HIV**-1, enzyme immunoassay for, conjugation of virus reverse transcriptase with Escherichia coli galactosidase for)
IT **Virus, animal**
(**human immunodeficiency** 1, IgG to, enzyme immunoassay for, conjugation of virus reverse transcriptase with Escherichia coli galactosidase for)
IT 9031-11-2D, .beta. D Galactosidase, reverse transcriptase conjugates **9068-38-6D**, Reverse transcriptase, .beta.-D-galactosidase conjugates
RL: USES (Uses)
(for enzyme immunoassay of IgG to **HIV**-1)
IT **128-53-0**, N-Ethylmaleimide **2645-22-9**, 4,4' Dithiodipyridine 13118-04-2, N,N'-o-Phenylenedimaleimide 55750-63-5 76931-93-6
RL: USES (Uses)
(in reverse transcriptase-galactosidase conjugate prepn. for enzyme immunoassay of IgG to **HIV**-1 virus)

L107 ANSWER 21 OF 37 HCAPLUS COPYRIGHT 2001 ACS

AN 1994:400313 HCAPLUS
DN 121:313
TI Inhibition of human immunodeficiency virus infection by agents that interfere with thiol-disulfide interchange upon virus-receptor interaction
AU Ryser, Hugues J.-P.; Levy, Elinor M.; Mandel, Richard; DiSciullo, Gino J.
CS Sch. Med., Boston Univ., Boston, MA, 02118, USA
SO Proc. Natl. Acad. Sci. U. S. A. (**1994**), 91(10), 4559-63
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English
CC **1-5** (Pharmacology)
AB The cell surface of mammalian cells is capable of reductively cleaving disulfide bonds of exogenous membrane-bound macromols. (for instance, the interchain disulfide of diphtheria toxin), and inhibiting this process with membrane-impermeant **sulfhydryl** reagents prevents diphtheria toxin cytotoxicity. More recently it was found that the same membrane function can be inhibited by bacitracin, an inhibitor of protein disulfide-isomerase (PDI), and by monoclonal antibodies against PDI, suggesting that PDI catalyzes a thiol-disulfide interchange between its thiols and the disulfides of membrane-bound macromols. The authors provide evidence that the same reductive process plays a role in the penetration of membrane-bound human immunodeficiency virus (**HIV**) and show that **HIV** infection of human lymphoid cells is markedly inhibited by the membrane-impermeant **sulfhydryl** blocker 5,5'-dithiobis(2-nitrobenzoic acid), by bacitracin, and by anti-PDI antibodies. The results imply that **HIV** and its target cell engage in a thiol-disulfide interchange mediated by PDI and that the redn. of crit. disulfides in viral envelope glycoproteins may be the initial event that triggers conformational changes required for **HIV** entry and cell infection. These findings suggest addnl. approaches to impede cell infection by **HIV**.
ST **HIV** infection thiol disulfide interchange inhibitor; disulfide isomerase inhibitor **HIV** infection
IT **Virucides and Virustats**
(thiol-disulfide interchange inhibitors, **HIV** infection inhibition by)
IT Antibodies
RL: BIOL (Biological study)
(to protein disulfide-isomerase, **HIV** infection inhibition by, thiol-disulfide interchange inhibition in relation to)
IT **Virus, animal**
(**human immunodeficiency** 1, infection, thiol-disulfide interchange inhibitors effect on)
IT **69-78-3**, 5,5'-Dithiobis(2-nitrobenzoic acid) 1405-87-4, Bacitracin
RL: BIOL (Biological study)
(human immunodeficiency virus infection inhibition by, thiol-disulfide interchange inhibition in relation to)
IT 37318-49-3, Protein disulfide-isomerase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitor, **HIV**-1 infection inhibition by)

L107 ANSWER 22 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1994:315212 HCAPLUS
DN 120:315212
TI Antiviral activity of some copper complexes of as-triazines
AU Popescu, Alexandrina; Jucu, V.; Tomas, E.; Zuiwertz, Alexandrina; Cristescu, C.; Tomas, S.
CS "Stefan S. Nicolau" Inst. Virol., Bucharest, 79650, Rom.
SO Rev. Roum. Virol. (**1992**), 43(1-2), 125-6
CODEN: RRVIEX; ISSN: 1018-0532
DT Journal
LA English
CC **1-5** (Pharmacology)
GI



I

AB Cu complexes with the asym. triazines I (R = H, OH) exhibited antiviral activity against vesicular stomatitis and herpes simplex viruses in human embryo cell cultures. The complexes were active at concns. of 10-8-10-6M, and appeared to act as superoxide radical scavengers.
ST copper triazine complex virucide
IT **Virucides and Virustats**
(copper complexes with asym. triazines as, against vesicular stomatitis and herpes simplex viruses in human cells)
IT Virus, animal
(herpes simplex, inhibition of, in human cells by copper complexes with asym. triazines)
IT Virus, animal
(vesicular stomatitis, inhibition of, in human cells by copper complexes with asym. triazines)
IT **7440-50-8D**, Copper, triazine complexes 155166-51-1D, copper complexes 155166-52-2D, copper complexes
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(virucidal activity of, against vesicular stomatitis and herpes simplex viruses in human cells)

L107 ANSWER 23 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1993:595124 HCAPLUS
DN **119:195124**
TI Pseudo-symmetrical **difluoroketones**. Highly potent and specific inhibitors of **HIV**-1 protease
AU Sham, Hing L.; Betebenner, David A.; Wideburg, Norman; Saldivar, Ayda C.; Kohlbrenner, William E.; Craig-Kennard, Adrienne; Vasavanonda, Sudthida; Kempf, Dale J.; Clement, Jacob J.; et al.
CS Abbott Laboratories, Anti-infective Research, D-47D, Abbott Park, IL, 60064-3500, USA
SO FEBS Lett. (**1993**), 329(1-2), 144-6
CODEN: FEBLAL; ISSN: 0014-5793
DT Journal
LA English
CC **1-3** (Pharmacology)
Section cross-reference(s): 23
AB A series of novel, pseudo-sym. difluoroketones which are highly potent inhibitors of the **HIV**-1 protease (IC50 = 1.55-0.02 nM) were synthesized. These compds. also possess good antiviral activity by inhibition of the cytopathic effect of **HIV**-13B in MT-4 cells in vitro.
ST difluoro ketone prepn **HIV** protease inhibition
IT **Virucides and Virustats**
(for **HIV**-1, difluoro ketones, structure in relation to)
IT **Ketones**, biological studies
RL: BIOL (Biological study)
(di-, fluoro, **HIV**-1 protease inhibition by)
IT **Virus, animal**
(**human immunodeficiency** 1, inhibition of, by difluoro ketones)
IT Molecular structure-biological activity relationship
(virucidal, of difluoro ketones, in **HIV**-1)
IT 1164-16-5 134807-20-8 144162-33-4 144163-00-8 144163-45-1 150462-11-6

RL: RCT (Reactant)
(coupling of, with oxazolidinones)
IT 9001-75-6, Pepsin 9015-94-5, Renin, biological studies 9025-26-7, Cathepsin D
RL: PROC (Process)
(inhibition of, by difluoroketones)
IT **144114-21-6**, Retropepsin
RL: PROC (Process)
(of **HIV**-1, inhibition of, by difluoroketones)
IT 133038-85-4P 144162-27-6P 144162-29-8P 144162-61-8P 144163-15-5P 144185-90-0P 151532-08-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and **HIV**-1 protease inhibition by, structure in relation to)
IT 133038-83-2P 150462-10-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydrolysis and coupling with protected valine)
IT 133038-87-6P 144162-28-7P 144162-31-2P 144162-35-6P 144163-14-4P 150521-45-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and oxidn. of)
IT 133038-82-1P 150462-09-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and oxime formation and catalytic hydrogenation of)
IT 5674-02-2, Isobutyl magnesium chloride 6921-34-2, Benzyl magnesium chloride
RL: RCT (Reactant)
(reaction of, with amides)
IT 134450-42-3 150462-08-1
RL: RCT (Reactant)
(reaction of, with benzyl or iso-Bu magnesium chloride)

L107 ANSWER 24 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1993:554816 HCAPLUS
DN 119:154816
TI Reactivity of cysteine residues in the protease from human immunodeficiency virus: Identification of a surface-exposed region which affects enzyme function
AU Karlstrom, Anders R.; Shames, Brian D.; Levine, Rodney L.
CS Lab. Biochem., Natl. Heart, Lung, Blood Inst., Bethesda, MD, 20892, USA
SO Arch. Biochem. Biophys. (**1993**), 304(1), 163-9
CODEN: ABBIA4; ISSN: 0003-9861
DT Journal
LA English
CC 7-5 (Enzymes)
Section cross-reference(s): **1**
AB The protease encoded by the human immunodeficiency virus (**HIV**) is essential for the processing of viral polyproteins encoded by the gag and pol genes into mature viral proteins. The 99-residue protease from **HIV**-1 contains two cysteine residues (Cys-67 and Cys-95), both of which are usually conserved in viruses isolated from patients. Despite this conservation, neither residue is required for enzymic activity. Certain site-specific cysteine mutants of **HIV**-1 protease are catalytically active, and the protease from **HIV**-2 lacks both cysteines. Copper is a potent inhibitor of **HIV**-1 protease, but not of mutants lacking cysteine. The addn. of copper to the protease at pH 5.5 induced aggregation of the protein, providing a possible basis for the inhibitory action of copper. However, addn. of both copper and dithiothreitol still led to inhibition of activity but did not cause aggregation. These findings led to a study of the reactivity of the cysteine residues to 5,5'-dithiobis-(2-nitrobenzoic acid) (Ellman's reagent), a **sulfhydryl** compd. which reacts with the ionized form of cysteine residues. At pH 6.2 in 6 M guanidine, no derivatization of cysteine residues occurred, consistent with the typical pKn of cysteine expected for the denatured protein. However, in the same buffer without guanidine, the native protease reacted rapidly with concomitant loss of

proteolytic activity. Peptic mapping demonstrated that both Cys-67 and Cys-95 were derivatized. A catalytically active fusion protein of protease with protein A domains was then studied with the expectation that access to Cys-95 would be hindered. This was confirmed, with only Cys-67 reacting rapidly with Ellman's reagent. Enzymic activity was again lost, indicating that derivatization of the surface-accessible Cys-67 was sufficient to inactivate the enzyme. The reactivity and accessibility of these residues suggest an interesting approach for the development of protease inhibitors which are not directed to the substrate-binding site.

ST HIV1 aspartic protease cysteine reactivity accessibility; virus HIV1 protease cysteine reactivity accessibility; virucide design HIV1 protease cysteine reactivity

IT **69-78-3**
RL: BIOL (Biological study)
(aspartic proteinase of **HIV**-1 virus inhibition by, cysteine-67 modification in)

IT **7440-50-8**, Copper, biological studies
RL: BIOL (Biological study)
(aspartic proteinase of **HIV**-1 virus inhibition by, enzyme aggregation in)

IT **144114-21-6**, Retropepsin
RL: BIOL (Biological study)
(cysteine-67 and -95 of, of **HIV**-1 virus, surface accessibility and reactivity of)

IT 52-90-4, Cysteine, properties
RL: PRP (Properties)
(of aspartic proteinase position 67 and 95 of **HIV**-1 virus, surface accessibility and reactivity of)

L107 ANSWER 25 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1993:423449 HCAPLUS
DN 119:23449
TI The ribonuclease H activity of **HIV**-1 reverse transcriptase: Further biochemical characterization and search of inhibitors
AU Andreola, M. L.; Tharaud, D.; Litvak, S.; Tarrago-Litvak, L.
CS IBC, CNRS, Bordeaux, 33077, Fr.
SO Biochimie (**1993**), 75(1-2), 127-34
CODEN: BICMBE; ISSN: 0300-9084
DT Journal
LA English
CC 7-3 (Enzymes)

AB A recombinant homodimer p66/p66 of the **HIV**-1 reverse transcriptase (RT) was expressed in and purified from a protease-deficient strain of the yeast Saccharomyces cerevisiae. The RNase H activity assocd. with the homodimer was biochem. characterized. The effect of cations and the hybrid substrate specificity were studied. Some compds. which have been found to inhibit **retroviral** replication were tested as potential inhibitors of the **retroviral** DNA polymerase and RNase H activities. Most of these compds. inhibited preferentially the DNA polymerase activity. On the other hand, only suramin inhibited RNase H more efficiently than DNA polymerase. As in the case of the DNA polymerase activity, the thiol-reacting agent N-ethylmaleimide (NEM) did not affect the RNase H activity of **HIV** RT. When the effect of NEM was tested against E. coli RNase H, a weak inhibitory effect was detected. Surprisingly, NEM strongly inhibits the same bacterial RNase H in the presence of a recombinant form of **HIV** RT devoid of nuclease activity. These results strongly suggest an interaction between E. coli RNase H and **HIV**-1 RT.

ST reverse transcriptase HIV1 virus RNase H; ethylmaleimide RNase H Escherichia HIV1 virus

IT Escherichia coli
(RNase H of, ethylmaleimide inhibition of, interaction with reverse transcriptase of **HIV**-1 virus effect on)

IT **Virus, animal**
(**human immunodeficiency** 1, RNase H of reverse transcriptase of, inhibition of)

IT 145-63-1, Suramin
RL: BIOL (Biological study)
(RNase H of reverse transcriptase of **HIV**-1 virus inhibition by, specificity of)
IT **128-53-0**, N-Ethylmaleimide
RL: BIOL (Biological study)
(RNase H of Eshcerichia coli and **HIV**-1 virus inhibition by, protein interactions in relation to)
IT **9068-38-6**, Reverse transcriptase
RL: BIOL (Biological study)
(RNase H of Eshcerichia coli interactions with, of **HIV**-1 virus, ethylmaleimide inhibition in relation to)
IT 9050-76-4, RNase H
RL: BIOL (Biological study)
(of reverse transcriptase of **HIV**-1 virus, inhibitors of)
IT 54-47-7, Pyridoxal phosphate 4408-78-0, Phosphonoacetic acid 126347-69-1, R82913
RL: BIOL (Biological study)
(reverse transcriptase of **HIV**-1 virus inhibition by, inhibition of RNase H in relation to)

L107 ANSWER 26 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1993:407072 HCAPLUS
DN **119:7072**
TI Human immunodeficiency virus type 1 coat protein neurotoxicity **mediated** by **nitric oxide** in primary cortical cultures
AU Dawson, Valina L.; Dawson, Ted M.; Uhl, George R.; Snyder, Solomon H.
CS Addict. Res. Cent., Natl. Inst. Drug Abuse, Baltimore, MD, 21224, USA
SO Proc. Natl. Acad. Sci. U. S. A. (**1993**), 90(8), 3256-9
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English
CC **15-8** (Immunochemistry)
Section cross-reference(s): 10
AB The human immunodeficiency virus type 1 coat protein, gp120, kills neurons in primary cortical cultures at low picomolar concns. The toxicity requires external glutamate and calcium and is blocked by glutamate receptor antagonists. **Nitric oxide** (NO) contributes to gp120 toxicity, since nitroarginine, an inhibitor of NO synthase, prevents toxicity as does deletion of arginine from the incubation medium and Hb, which binds NO. Superoxide dismutase also attenuates toxicity, implying a role for superoxide anions.
ST **HIV** protein gp120 neurotoxicity **nitric oxide**
IT Hemoglobins
RL: BIOL (Biological study)
(**HIV**-1 protein gp120 toxicity regulation by, in brain cerebral cortex, **nitric oxide** in relation to)
IT Ion channel
(calcium, L-type, **HIV**-1 protein gp120 neurotoxicity mediation by, in brain cerebral cortex, glutamate dependence in)
IT Receptors
RL: BIOL (Biological study)
(glutamatergic, **HIV**-1 protein gp120 neurotoxicity mediation by, in brain cerebral cortex, **nitric oxide** in relation to)
IT Receptors
RL: BIOL (Biological study)
(glutamatergic, methyl-D-aspartate-binding, **HIV**-1 protein gp120 neurotoxicity mediation by, in brain cerebral cortex, **nitric oxide** in relation to)
IT Sialoglycoproteins
RL: PRP (Properties)
(gp120env, neurotoxicity of, of **HIV**-1, in brain cerebral cortex, **nitric oxide** role of)
IT **Virus, animal**

(**human immunodeficiency** 1, protein gp120 of, neurotoxicity of, in brain cerebral cortex, **nitric oxide** role in)
IT Nerve, disease
(injury, **HIV**-1 protein gp120 induction of, calcium and glutamate dependence in, **nitric oxide** role in)
IT 9054-89-1, Superoxide dismutase
RL: BIOL (Biological study)
(**HIV**-1 protein gp120 neurotoxicity attenuation by, in brain cerebral cortex, superoxide in relation to)
IT 56-86-0, Glutamic acid, biological studies
RL: BIOL (Biological study)
(**HIV**-1 protein gp120 neurotoxicity dependence on calcium and, in brain cerebral cortex, **nitric oxide** role in)
IT 7440-70-2, Calcium, biological studies
RL: BIOL (Biological study)
(**HIV**-1 protein gp120 neurotoxicity dependence on glutamate and, in brain cerebral cortex, **nitric oxide** role in)
IT 10102-43-9, **Nitric oxide**, biological studies
RL: BIOL (Biological study)
(**HIV**-1 protein gp120 neurotoxicity mediation by, in brain cerebral cortex, calcium and glutamate dependence in)
IT 74-79-3, Arginine, biological studies
RL: BIOL (Biological study)
(**HIV**-1 protein gp120 neurotoxicity mediation by, in brain cerebral cortex, **nitric oxide** in relation to)
IT 7665-99-8, CGMP
RL: FORM (Formation, nonpreparative)
(formation of, in brain cerebral cortex, **HIV**-1 protein gp120 neurotoxicity stimulation of, **nitric oxide** role in)

L107 ANSWER 27 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1993:183391 HCAPLUS
DN 118:183391
TI Method of inhibiting human immunodeficiency virus (**HIV**) protease with **sulfhydryl**-reactive compounds
IN Levine, Rodney L.; Karlstrom, Anders R.; Shames, Brian D.
PA United States Dept. of Health and Human Services, USA
SO U. S. Pat. Appl., 14 pp. Avail. NTIS Order No. PAT-APPL-6-832 236.
CODEN: XAXXAV
DT Patent
LA English
CC **1-5** (Pharmacology)
Section cross-reference(s): 7
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 832236	A0	19930101	US 1992-832236	19920207 <--
	WO 9315730	A1	19930819	WO 1993-US889	19930202 <--
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9336040	A1	19930903	AU 1993-36040	19930202 <--
PRAI	US 1992-832236		19920207 <--		
	WO 1993-US889		19930202 <--		

AB A method and compn. are disclosed for inhibiting the growth and replication of a virus, e.g. a **retrovirus** and in particular **HIV** (specifically **HIV**-1), through reaction of the viral protease on an exposed surface, in particular an exposed surface outside of the active site of the viral protease. The method preferably involves contacting the virus with a compn. comprising a SH group-reactive compd., e.g. DTNB. Thus, the **HIV**-1 aspartyl protease, which contains 2 Cys residues at positions 67 and 95, was reacted with DTNB; the DTNB reacted to form disulfide bridges between itself and each of the 2 Cys residues. Using a fusion protein contg. the protease and an IgG binding domain (ZZ) for reaction with DTNB, results indicated that Cys-67 was

selectively derivatized, and its reaction with DTNB was responsible for the inhibition of the protease activity. Exposure of the DTNB-reacted fusion protein with DTT for 5 min restored the activity of the viral protease to 70% of control.

ST human immunodeficiency virus protease inhibition; **sulfhydryl** reagent **HIV** protease inhibition; DTNB **HIV** virus protease inhibition

IT Mercapto group
(compds. reactive with, in human immunodeficiency virus protease inhibition)

IT **Virucides and Virustats**
(**sulfhydryl**-reactive compds., for viral protease inhibition)

IT Immunoglobulins
RL: BIOL (Biological study)
(G, binding domain (ZZ), fusion protein with human immunodeficiency virus 1 protease, inhibition by DTNB of)

IT Proteins, specific or class
RL: BIOL (Biological study)
(fusion products, of protease of human immunodeficiency virus 1 with IgG binding domain (ZZ), inhibition by DTNB of)

IT **Virus, animal**
(**human immunodeficiency** 1, protease of, inhibition of, **sulfhydryl**-reactive compds. for)

IT **Virus, animal**
(**retro**-, protease of, inhibition of, **sulfhydryl** -reactive compds. for)

IT 3483-12-3, DTT
RL: BIOL (Biological study)
(DTNB-induced inhibition of human immunodeficiency virus 1 protease-contg. fusion protein reversal by)

IT **69-78-3**, 5,5'-Dithiobis(2-nitrobenzoic acid)
RL: BIOL (Biological study)
(human immunodeficiency virus protease inhibition by)

IT **37205-61-1**, Proteinase inhibitor
RL: BIOL (Biological study)
(of **HIV**, **sulfhydryl**-reactive compds. as)

IT 52-90-4, Cysteine, biological studies
RL: BIOL (Biological study)
(of protease of human immunodeficiency virus 1, reaction with DTNB of, for protease inhibition)

L107 ANSWER 28 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1990:229716 HCAPLUS
DN **112:229716**
TI Antiviral composition containing aromatic polycyclic **diones** and nucleoside analogs and method for treating **retrovirus** infections
IN Meruelo, Daniel; Lavie, Gad
PA New York University, USA
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-70
CC **1-5** (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8909055	A1	19891005	WO 1989-US1035	19890315 <--
	W: AU, BR, DK, FI, JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	AU 8932942	A1	19891016	AU 1989-32942	19890315 <--
	ES 2010464	A6	19891101	ES 1989-1031	19890322 <--
	ZA 8902216	A	19900328	ZA 1989-2216	19890323 <--
PRAI	US 1988-172064	A	19880323 <--		
	WO 1989-US1035	A	19890315 <--		

AB **Retroviral** infections are treated with a nucleoside and an arom. polycyclic dione such as hypericin or pseudohypericin. AZT + hypericin or pseudohypericin was synergistic in antiviral activity in mice infected with Friend Leukemia Virus. The combination therapy enabled redn. of the frequency and concn. of administered AZT, minimizing the side effects of the drug without decreasing its effectiveness.
ST virucide nucleoside polycyclic dione; hypericin nucleoside virucide
IT **Virucides and Virustats**
(nucleoside-hypericin deriv. compns.)
IT Nucleosides, biological studies
RL: BIOL (Biological study)
(virucidal compns. contg. hypericin derivs. and)
IT **Ketones**, biological studies
RL: BIOL (Biological study)
(di-, polycyclic, virucidal compns. contg. nucleosides and)
IT 3416-05-5, 2',3'-Dideoxythymidine 4097-22-7, 2',3'-Dideoxyadenosine 7481-89-2, 2',3'-Dideoxycytidine 30516-87-1, 3'-Azido-3'-deoxythymidine 85326-06-3, 2',3'-Dideoxyguanosine
RL: BIOL (Biological study)
(virucidal compns. contg. hypericin derivs. and)
IT 548-04-9, Hypericin 55954-61-5, Pseudohypericin
RL: BIOL (Biological study)
(virucidal compns. contg. nucleosides and)

L107 ANSWER 29 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1990:229715 HCAPLUS
DN **112:229715**
TI Antiviral composition containing aromatic polycyclic **diones** and nucleoside analogs and method for treating **retrovirus** infections
IN Meruelo, Daniel; Lavie, Gad
PA New York University, USA
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-70
CC **1-5** (Pharmacology)
Section cross-reference(s): 63
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8909056	A1	19891005	WO 1989-US1211	19890322 <--
	W: AU, BR, DK, FI, JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	AU 8934239	A1	19891016	AU 1989-34239	19890322 <--
	EP 362359	A1	19900411	EP 1989-904668	19890322 <--
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 02504283	T2	19901206	JP 1989-504326	19890322 <--
	DK 8905869	A	19900119	DK 1989-5869	19891122 <--
	ZA 9002032	A	19901228	ZA 1990-2032	19900316 <--
	US 6150414	A	20001121	US 1992-970229	19921102 <--
PRAI	US 1988-172064	A	19880323 <--		
	US 1989-324177	A	19890317 <--		
	US 1989-326392	A	19890320 <--		
	WO 1989-US1211	A	19890322 <--		
	US 1989-417163	B2	19891004 <--		
	US 1990-488518	B1	19900227 <--		
	US 1992-883799	B1	19920215 <--		

AB **Retroviral** infections are treated with a nucleoside and an arom. polycyclic dione such as hypericin or pseudohypericin. AZT + hypericin or pseudohypericin was synergistic in antiviral activity in mice infected with Friend Leukemia Virus. The combination therapy enabled redn. of the frequency and concn. of administered AZT, minimizing the side effects of the drug without decreasing its effectiveness.
ST virucide nucleoside polycyclic dione; hypericin nucleoside virucide
IT **Virucides and Virustats**

(hypericin deriv.-nucleoside compns.)
IT Nucleosides, biological studies
RL: BIOL (Biological study)
(virucidal compns. contg. hypericin derivs. and)
IT **Ketones**, biological studies
RL: BIOL (Biological study)
(di-, polycyclic, virucidal compns. contg. nucleosides and)
IT 3416-05-5, 2',3'-Dideoxythymidine 4097-22-7, 2',3'-Dideoxyadenosine 7481-89-2, 2',3'-Dideoxycytidine 30516-87-1, AZT 85326-06-3, 2',3'-Dideoxyguanosine
RL: BIOL (Biological study)
(virucidal compns. contg. hypericin derivs. and)
IT 548-04-9, Hypericin 55954-61-5, Pseudohypericin
RL: BIOL (Biological study)
(virucidal compns. contg. nucleosides and)

L107 ANSWER 30 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1989:627688 HCAPLUS
DN 111:227688
TI Human immunodeficiency virus reverse transcriptase expressed in transformed yeast cells. Biochemical properties and interactions with bovine tRNALys
AU Sallafranque-Andreola, Marie Line; Robert, Dominique; Barr, Philip J.; Litvak, Simon; Sarih-Cottin, Leila; Tarrago-Litvak, Laura; Fournier, Michel
CS Inst. Biochim. Cell. Neurochim., Cent. Natl. Rech. Sci., Bordeaux, Fr.
SO Eur. J. Biochem. (**1989**), 184(2), 367-74
CODEN: EJBCAI; ISSN: 0014-2956
DT Journal
LA English
CC 7-2 (Enzymes)
AB Human immunodeficiency virus (**HIV**) reverse transcriptase (I) was purified from yeast transformed by an autoreplicating plasmid contg. the **retroviral** DNA polymerase gene. A previously described purifn. procedure for the yeast-expressed I was substantially modified, leading to an increased yield and a higher degree of purity. Several biochem. properties of I were described (template specificity, effect of DNA synthesis inhibitors); interestingly, **HIV** I was highly resistant to N-ethylmaleimide. A complex between the human **retroviral** enzyme and bovine tRNALyswas shown, using a direct approach, by glycerol gradient centrifugation, as well as by the protective and specific effect of the tRNALysagainst enzyme inactivation by thermal denaturation and trypsin digestion. A competitive type of inhibition of **HIV** I by tRNALys, but not by tRNAVal, was obsd. when viral RNA or activated DNA were used as templates.
ST reverse transcriptase **HIV** virus; human immunodeficiency virus reverse transcriptase; lysine tRNA reverse transcriptase **HIV** virus
IT Kinetics, enzymic
(of inhibition, of reverse transcriptase of **HIV** virus by TTP)
IT Michaelis constant
(of reverse transcriptase, of **HIV** virus)
IT **Virus, animal**
(**human immunodeficiency** 1, reverse transcriptase of, purifn. and properties of, interaction with lysine-specific tRNA in relation to)
IT Ribonucleic acids, transfer
RL: BIOL (Biological study)
(lysine-specific, reverse transcriptase of **HIV**-1 virus interaction with, of liver)
IT **9068-38-6P**, Reverse transcriptase
RL: PREP (Preparation)
(of **HIV**-1 virus, purifn. and properties of)
IT 365-08-2
RL: BIOL (Biological study)
(reverse transcriptase of **HIV** virus inhibition by and

reaction kinetics with)
IT **128-53-0**
RL: BIOL (Biological study)
(reverse transcriptase of **HIV** virus resistance to)

L107 ANSWER 31 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1989:587584 HCAPLUS
DN **111:187584**
TI Antiviral compositions containing aromatic polycyclic **diones** for treating **retrovirus** infections
IN Lavie, David; Meruelo, Daniel; Lavie, Gad; Revel, Michel; Vande, Velde Vincent; Rotman, Dalia
PA New York University, USA; Yeda Research and Development Ltd.
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-05
ICS A61K031-045
CC **1-5** (Pharmacology)
Section cross-reference(s): 11
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8901329	A1	19890223	WO 1988-US2616	19880803 <--
	W: AU, BR, DK, FI, JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	AU 8823012	A1	19890309	AU 1988-23012	19880803 <--
	AU 631525	B2	19921203		
	EP 332679	A1	19890920	EP 1988-907908	19880803 <--
	EP 332679	B1	19930616		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 02501220	T2	19900426	JP 1988-507109	19880803 <--
	JP 2725813	B2	19980311		
	AT 90558	E	19930715	AT 1988-907908	19880803 <--
	ZA 8805838	A	19890426	ZA 1988-5838	19880809 <--
	CA 1329133	A1	19940503	CA 1988-574274	19880810 <--
	US 5047435	A	19910910	US 1989-328767	19890327 <--
	FI 8901665	A	19890407	FI 1989-1665	19890407 <--
	DK 8901674	A	19890609	DK 1989-1674	19890407 <--
PRAI	US 1987-84008		19870810 <--		
	IL 1986-79661		19860808 <--		
	US 1987-82700		19870807 <--		
	EP 1988-907908		19880803 <--		
	WO 1988-US2616		19880803 <--		

AB Arom. polycyclic diones, specifically hypericin (I) and pseudohypericin (II), are drugs for the treatment of **retrovirus** infections. I and II were extd. from St. Johnswort (Hypericum triquetrifolium) with Me2CO in a Soxhlet app. and sepd. by silica gel-60 chromatog., using CHCl3-Me2CO-MeOH (75:15:10 and 55:15:10) for elution. Further purifn. was by flash chromatog. on silica gel-60. II (80 .mu.g/animal, i.p.) administered 24 h after infection decreased the malignant transformational capacity of the Friend leukemia virus in mice, as shown by decreased splenomegaly.
ST **retrovirus** drug hypericin pseudohypericin; Hypericum arom polycyclic dione virucide
IT Hypericum triquetrifolium
(hypericin and pseudohypericin from, as virucides)
IT **Virucides and Virustats**
(hypericin and pseudohypericin, against **retroviruses**)
IT **Ketones**, biological studies
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(di-, aryl, polycyclic, virucides, from Hypericum, against **retroviruses**)
IT **Virus, animal**

(**retro-**, infection with, treatment of, hypericin and pseudohypericin for)
IT 548-04-9, Hypericin 55954-61-5, Pseudohypericin
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(virucide, against **retroviruses**)

L107 ANSWER 32 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1987:169033 HCAPLUS
DN **106:169033**
TI Preparation of peptide **halomethyl ketones** as picornavirus proteinase inhibitors and virucides
IN Kettner, Charles A.; Korant, Bruce D.
PA du Pont de Nemours, E. I., and Co., USA
SO U.S., 10 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K037-02
ICS C07K005-06; C07K005-08; C07K005-10
NCL 514018000
CC **1-5** (Pharmacology)
Section cross-reference(s): 34
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4636492	A	19870113	US 1984-645426	19840829 <--
EP 263202	A1	19880413	EP 1986-307688	19861006 <--
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 63112525	A2	19880517	JP 1986-254812	19861028 <--
PRAI US 1984-645426		19840829 <--		

AB Tri- and tetrapeptide halomethyl ketones R1A3nA2A1NHCHR2COCH2X (I; A2 = Ala, Val, Leu, Ile, Gly; A3 = A2, Phe, Tyr; A1 = A3, Pro, Ser, Thr; R1 = N- terminal protecting group; R2 = Me, iso-Pr, iso-Bu, 4-HOC6H4CH2, CH2CH2COR3; R3 = NH2, OMe, OEt, OCH2Ph, C1-6 alkyl; X = Cl, Br; n = 0, 1) which inhibit picornavirus proteinase activity are used for treatment of viral infections of mammals. Z-Phe-Gly-Leu-Leu-CH2Cl (Z = benzyloxycarbonyl) was prepd. by coupling the N-hydroxysuccinimide ester of Z-Phe with Gly-Leu, converting the product to a mixed anhydride with iso-Bu chloroformate, and coupling with Leu-CH2Cl.HCl. I caused 90% plaque inhibition at 1 .mu.g/mL in cultured HeLa cells infected with human rhino virus type 1A; cytotoxicity was obsd. only at >= 15 .mu.g/mL. I inhibit posttranslational processing of picornavirus capsid proteins by virus-encoded proteinases and thus interfere with viral replication.
ST virus proteinase inhibitor peptide; halomethyl ketone peptide virucide
IT **Virucides and Virustats**
(peptide halomethyl ketones, for picornaviruses)
IT Peptides, compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(halomethyl ketone-contg., prepn. of, as picornavirucides)
IT **Ketones**, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(halomethyl, peptidyl, prepn. of, as picornavirucides)
IT Virus, animal
(picorna-, infection with, peptide halomethyl ketones for treatment of)
IT Virus, animal
(polio-, infection with, peptide halomethyl ketones for treatment of)
IT Virus, animal
(rhino-, infection with, peptide halomethyl ketones for treatment of)
IT 103542-66-1
RL: RCT (Reactant)
(deblocking of)
IT 3978-80-1 13734-41-3
RL: RCT (Reactant)
(diazomethylation of)
IT 9001-92-7, Proteinase

RL: PROC (Process)
(of picornarvirus, halomethyl ketones inhibition of)
IT 869-19-2 1161-13-3 2491-20-5 3392-07-2 3397-32-8 4530-20-5
13734-34-4 23680-31-1 29738-89-4 54518-91-1 54518-92-2
65356-63-0
RL: RCT (Reactant)
(peptide coupling reaction of)
IT 103542-63-8P 103542-67-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and carbobenzoxylation of)
IT 53559-08-3P 95083-49-1P 103542-45-6P 103542-47-8P 103574-37-4P
107831-82-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and deblocking of)
IT 42291-52-1P 53559-10-7P 59095-76-0P 97532-13-3P 103542-61-6P
103542-62-7P 103542-64-9P 107831-79-8P 107831-80-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and peptide coupling reaction of)
IT 19459-22-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, with Me N-hydroxysuccinimidyl succinate)
IT 67865-71-8P 103602-26-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with hydrochloric acid)
IT 107831-81-2P 107831-85-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and sapon. of)
IT 107831-84-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and succinylation of)
IT 55048-52-7P 103542-48-9P 103542-49-0P 103542-50-3P 103542-51-4P
103542-54-7P 103542-56-9P 103542-58-1P 103574-36-3P 107831-68-5P
107831-69-6P 107831-70-9P 107831-71-0P 107831-72-1P 107831-73-2P
107831-74-3P 107831-75-4P 107831-76-5P 107831-77-6P 107831-78-7P
107846-32-2P 107854-75-1P 107854-76-2P 107854-77-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as picornavirucide)
IT 52787-46-9
RL: RCT (Reactant)
(reaction of, with tripeptide)

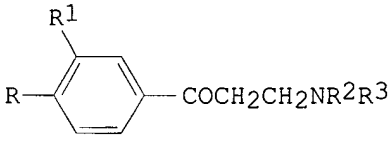
L107 ANSWER 33 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1983:447601 HCAPLUS
DN 99:47601
TI Study of the antiviral activity of copper(II) salts of .alpha.-amino acids
AU Mitin, N. I.; Lagutkin, N. A.; Chapurina, L. F.; Zubairov, M. M.; Petracheva, T. K.; Arkhipova, T. N.
CS Inst. Khim., Kishinev, USSR
SO Khim.-Farm. Zh. (**1983**), 17(5), 565-6
CODEN: KHFZAN; ISSN: 0023-1134
DT Journal
LA Russian
CC **1-5** (Pharmacology)
AB The antiviral activity of a series of Cu(II) salts of amino acids was tested against avian influenza A virus, Newcastle disease virus, and Ayeskii disease virus. Of 8 compds. tested, 2 displayed significant activity: Cu(II)-glycine [13479-54-4] and Cu(II)-DL-serine [15416-50-9]. The possible structure-activity relation is briefly discussed.
ST antiviral copper amino acid complex; glycine copper complex virucide; serine copper complex virucide; virucide copper amino acid complex
IT **Virucides and Virustats**
(copper-amino acid complexes)
IT Molecular structure-biological activity relationship
(virucidal, of copper-amino acid complexes)
IT Amino acids, compounds
RL: BAC (Biological activity or effector, except adverse); BIOL

(Biological study)
(.alpha.-, copper complexes, antiviral activity of)
IT **7440-50-8D**, .alpha.-amino acid complexes 13479-54-4 14852-35-8 15416-50-9 16482-64-7 33849-10-4 33849-15-9 51096-14-1 53730-45-3
RL: BAC (Biological activity or effector, except adverse); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antiviral activity of, structure in relation to)

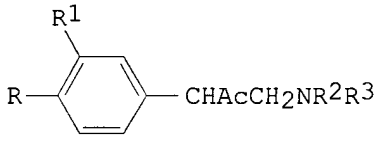
L107 ANSWER 34 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1982:603220 HCAPLUS
DN **97:203220**
TI Inhibition of enveloped viruses with **phenyl ketones**
IN Baratz, Brenda S.; Phillips, Robert A.; Steward, David L.
PA Dow Chemical Co., USA
SO U.S., 7 pp. Cont. of U.S. Ser. No. 643,585, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC H61K027-00; A61K031-445; A61K031-135
NCL 424267000
CC **63-6** (Pharmaceuticals)
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4333941	A	19820608	US 1977-839056	19771003 <--
PRAI US 1975-643585		19751222 <--		

GI



I



II

AB Enveloped viruses are inactivated by contacting the viruses or virus infected cells with antiviral compns. contg. the title compds. (I or II; R = H, halogen, or C1-12 alkoxy; R1 = H or halogen; R2 and R3 = alkyl or NR2R3 = heterocycle amino group or C4-6 quaternary heterocyclic ammonium group having 4-6 C atoms and 0 or 1 ring heteroatom N, O, or S in addn. to the N in the ring) and their salts. Thus, a water-dispersible ointment contained dyclonine-HCl (I, R = BuO, R1 = H, NR2R3 = piperidino; HCl) [536-43-6] 1% mixed with 60 and 10% polyethylene glycol 200 dilaurate and distearate, resp., and 30% mineral oil. The antiviral effect of a no. of I and II was demonstrated.
ST antiviral aminoalkyl phenylketone; dyclonine antiviral
IT **Virucides and Virustats**
(Ph ketone amines, topical compns. contg.)
IT **Ketones**, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(.beta.-aminophenyl, antiviral compns. contg.)
IT 536-43-6
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiviral compn. contg., for inactivation of enveloped viruses)
IT 1026-88-6 1155-49-3 5249-85-4 5249-88-7 5289-93-0 25287-70-1 27922-19-6 63815-42-9 63957-29-9 74980-00-0 74980-01-1 74980-02-2 74980-03-3 74980-04-4
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(enveloped viruses inactivation by)

IT 1219-34-7 3670-68-6 27702-56-3 82935-05-5 82935-06-6 82935-07-7
82935-08-8 82935-09-9 82935-10-2 82935-11-3 82935-12-4
82935-13-5
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(for enveloped viruses inactivation)

L107 ANSWER 35 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1981:564668 HCAPLUS
DN 95:164668
TI Template-binding site of AMV reverse transcriptase and inactivation of the enzyme by N-ethylmaleimide
AU Parnaik, Veena K.; Das, M. R.
CS Reg. Res. Lab., Cent. Cell. Mol. Biol., Hyderabad, 500009, India
SO Biochim. Biophys. Acta (**1981**), 655(2), 181-8
CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English
CC 7-5 (Enzymes)
AB N-Ethylmaleimide strongly inhibits avian myeloblastosis virus (AMV) reverse transcriptase (I) by specifically interfering with the template-binding site of the enzyme. However, the kinetics of inhibition differed widely with the compn. and structure of the templates employed. The copying of templates with multiple 3'-hydroxyl termini appeared to be more susceptible to N-ethylmaleimide treatment, suggesting that the reagent may interfere with initiation of DNA synthesis. The ability of a template bound to I prior to N-ethylmaleimide treatment to protect against inactivation of copying of other templates also implied a common binding site for the different templates. Template exchange expts. demonstrated competition between activated calf thymus DNA and rAn.cntdot.dT12-18 for binding to I. Thus, templates varying widely in compn. and conformation appear to bind at a common site on I. The exptl. data also showed suggestive evidence for small but finite differences in the requirements for optimal binding for templates of different structures.
ST ethylmaleimide inhibition reverse transcriptase; avian myeloblastosis virus reverse transcriptase; reverse transcriptase template binding site
IT Kinetics, enzymic
(of inhibition, of reverse transcriptase)
IT Michaelis constant
(of reverse transcriptase)
IT Deoxyribonucleic acids
Ribonucleic acids
RL: BIOL (Biological study)
(reverse transcriptase binding site for, ethylmaleimide inactivation of)
IT **Virus, animal**
(**avian myeloblastosis**, reverse transcriptase of, template-binding site of)
IT 24939-09-1 25512-84-9 26966-61-0 27156-07-6 35769-90-5
54482-00-7
RL: BIOL (Biological study)
(reverse transcriptase binding site for, ethylmaleimide inactivation of)
IT **128-53-0**
RL: BIOL (Biological study)
(reverse transcriptase inhibition by, template-binding site in relation to)
IT **9068-38-6**
RL: BIOL (Biological study)
(template-binding site of, of avian myeloblastosis virus, ethylmaleimide inactivation of)

L107 ANSWER 36 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1979:588579 HCAPLUS
DN 91:188579
TI In vitro cleavage of avian **retrovirus** gag proteins by viral

protease p15
AU Vogt, Volker M.; Wight, Alice; Eisenman, Robert
CS Sect. Biochem., Mol. Cell Biol., Cornell Univ., Ithaca, NY, 14853, USA
SO Virology (**1979**), 98(1), 154-67
CODEN: VIRLAX; ISSN: 0042-6822
DT Journal
LA English
CC 7-3 (Enzymes)
Section cross-reference(s): 10
AB Avian myeloblastosis virus contains a proteolytic activity that can cleave in vitro the viral precursor polypeptide Pr76gag. This substrate was prepd. by radioactive labeling in vivo followed by immune pptn., polyacrylamide gel electrophoresis in presence of Na dodecyl sulfate, and elution from the gel. The major products of this reaction include the mature virion proteins, p27 and p15, as well as an unstable fragment contg. both of these proteins. Several other fragments also are formed, but mature p12 and the major p19 species are not. The cleavage of undenatured Pr76 bound to antibodies and formalin-fixed Staphylococcus yields similar fragments. The viral proteolytic enzyme is indistinguishable from the structural protein p15. Cleavage of Pr76 by p15 is optimal in the pH range 4-7 and is stimulated by salt. The activity of the enzyme is not inhibited by reagents specific for proteases with serine at their active sites, but is partially inhibited by reagents specific for thiols. Proteolysis is highly specific. Under the conditions used for Pr76 cleavage, p15 does not introduce breaks into mixts. of cellular proteins eluted in parallel to Pr76 from SDS-contg. gels. However, it does fragment proteins that contain all or parts of the amino acid sequence of Pr76. These proteins include the precursor polypeptide for viral reverse transcriptase (Pr180gag-pol), a virus-related protein found in uninfected gs+ chick cells (P120), and viral proteins from cells infected with avian erythroblastosis virus (P75) or with avian myelocytomatosis virus MC29 (P110).
ST avian **retrovirus** gag protein cleavage; virus protease p15 gag protein cleavage
IT Proteins
RL: BIOL (Biological study)
(Pr76, of avian **retrovirus**, proteinase p15 of avian myeloblastosis virus cleavage of)
IT **Virus, animal**
(**avian myeloblastosis**, proteinase p15 of, **retrovirus** gag protein cleavage by)
IT Proteins
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(p15, proteinase activity of, of avian myeloblastosis virus)
IT Animal cell
(virus-infected, proteins of, proteinase p15 cleavage of)
IT 71892-49-4
RL: BIOL (Biological study)
(of avian myeloblastosis virus, **retrovirus** gag protein cleavage by)
IT **9068-38-6**
RL: BIOL (Biological study)
(precursor protein for, proteinase p15 of avian myeloblastosis virus cleavage of)
IT **128-53-0** 138-85-2
RL: BIOL (Biological study)
(proteinase p15 of avian myeloblastosis virus inhibition by)

L107 ANSWER 37 OF 37 HCAPLUS COPYRIGHT 2001 ACS
AN 1978:2157 HCAPLUS
DN 88:2157
TI Purification and further characterization of an RNA-dependent and DNA polymerase from the allantoic fluid of leukosis-virus-free chicken eggs
AU Bauer, Georg; Jilek, Gabriele; Hofschneider, Peter Hans
CS Abt. Virusforsch., Max-Planck-Inst. Biochem., Martinstried, Ger.

SO Eur. J. Biochem. (**1977**), 79(2), 345-54
CODEN: EJBCAI
DT Journal
LA English
CC 7-2 (Enzymes)
AB The purifn. of an RNA-dependent DNA polymerase from the allantoic fluid of uninfected, embryonated chicken eggs is described in detail. Comparison to the polymerase of avian myeloblastosis virus shows that the 2 enzymes are different with respect to ion concns. for optimal reaction, response to increasing concns. of substrate, thermal stability, and protection from thermal inactivation by viral RNA. These enzymes are different proteins, which must have been coded by different genes. The RNA-dependent DNA polymerase in the allantoic fluid, therefore, does not derive from the partial or complete expression of the endogenous virus genome of the normal chicken cell or from infection by exogenous viruses.
ST reverse transcriptase allantoic fluid; avian myeloblastosis virus reverse transcriptase
IT Egg, poultry
(RNA-dependent DNA polymerase of allantoic fluid of)
IT Allantoic fluid
(RNA-dependent DNA polymerase of, of chicken egg)
IT Kinetics, enzymic
Michaelis constant
(of reverse transcriptase)
IT **Virus, animal**
(**avian myeloblastosis**, reverse transcriptase of, RNA-dependent DNA polymerase of allantoic fluid of chicken egg in relation to)
IT **9068-38-6**
RL: BIOL (Biological study)
(of allantoic fluid of chicken egg)
IT 13292-47-2
RL: BIOL (Biological study)
(reverse transcriptase inhibition by)
IT 59-85-8 **128-53-0**
RL: BIOL (Biological study)
(reverse transcriptase of allantoic fluid inhibition by)

=> d his

(FILE 'HOME' ENTERED AT 10:34:11 ON 16 SEP 2001)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 10:34:56 ON 16 SEP 2001
E US6001555/PN
L1 1 S E3
E HENDERSON L/AU
L2 54 S E3,E6
E HENDERSON LOUIS/AU
L3 119 S E2,E3,E5,E6
E ARTHUR L/AU
L4 110 S E3,E6,E9-E11
E RICE W/AU
L5 18 S E3,E8
E RICE WILL/AU
L6 56 S E5,E12,E13
SEL RN L1

FILE 'REGISTRY' ENTERED AT 10:46:35 ON 16 SEP 2001
L7 56 S E1-E56
L8 18 S 7440-50-8 OR 7439-89-6 OR 94-37-1 OR 97-77-8 OR 137-26-8 OR 5
L9 38 S L7 NOT L8
L10 28 S L9 AND S>=2
L11 46 S L8,L10
L12 10 S L7 NOT L11

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L13           1 S L12 AND NC4/ES
L14           2 S 30516-87-1 OR 35964-48-8
L15           1 S L14 NOT OC4/ES
L16          47 S L11,L13,L15
                E COPPER, ION/CN
L17           1 S E55
                E IRON, ION/CN
L18           1 S E66
L19             STR
L20          50 S L19 CSS SAM
                E 16.136.10/RID
L21           2 S L7 AND ZN/ELS
L22          49 S L16-L18

     FILE 'HCAPLUS' ENTERED AT 11:19:52 ON 16 SEP 2001
L23      629779 S L22
L24      452920 S L23 AND (PY<=1994 OR PRY<=1994 OR AY<=1994)
                E RETROVIR/CW
L25        3709 S E4-E7
                E RETROVIR/CT
                E E7+ALL
                E E2+ALL
L26       45725 S E4,E3+NT
                E HIV/CT
                E E11+ALL
L27       14428 S E2,E3
                E E2+ALL
L28       16521 S E6
                E HIV/CT
                E E4+ALL
                E E2+ALL
L29        9012 S E7,E8,E6+NT
L30        3024 S E22
                E HIV/CT
                E E3+ALL
                E HIV/CT
                E E5+ALL
                E HIV/CT
                E E6+ALL
L31         692 S E2
                E E2+ALL
L32        1081 S E6
                E HIV/CT
                E E8+ALL

     FILE 'REGISTRY' ENTERED AT 11:24:16 ON 16 SEP 2001
L33           1 S RETROPEPSIN/CN
                E HIV PROTEINASE/CN
L34           1 S E3

     FILE 'HCAPLUS' ENTERED AT 11:24:38 ON 16 SEP 2001
L35        1888 S L33,L34
                E HIV/CT
L36       19458 S RETROVIRAL? OR RETROVIRUS? OR RETROVIRID? OR RETROVIRUC?
                E ACQUIRED IMMUNODEFICIENCY/CT
                E E4+ALL
                E E2+ALL
L37        4692 S E7,E8
L38       38103 S AIDS OR ACQUIR?(L)(IMMUNODEFICIEN? OR IMMUN?(L)DEFICIEN?)(L)(
L39        6896 S  HUMAN(L)(IMMUNODEFICIEN? OR IMMUN?(L)DEFICIEN?)(L)(SYNDROME
L40       39983 S HIV
L41        3709 S L25 AND L26-L32,L35-L40
                E ANTIVIR/CW
L42       10137 S E4
                E ANTIVIR/CT
                E E6+ALL
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L43       29046 S E10,E11,E9,E15-E18
L44         376 S L41 AND L42,L43
L45           2 S L2-L6 AND L24
L46           5 S L21 AND L44
L47          30 S L24 AND ZINC(L)FINGER
L48           1 S L47 AND L41
L49           2 S L47 AND L42,L43
L50           2 S L1,L45,L48,L49
L51           2 S L50 AND L21
L52          97 S L21 AND L24 AND L25-L32,L35-L40,L42,L43
L53          24 S L52 AND (1 OR 15 OR 63)/SC

     FILE 'REGISTRY' ENTERED AT 11:38:48 ON 16 SEP 2001
L54          45 S L16 NOT (CU OR FE)/ELS

     FILE 'HCAPLUS' ENTERED AT 11:39:07 ON 16 SEP 2001
L55       75613 S L54
L56       39254 S L55 AND L24
L57          97 S L56 AND L25-L32,L35-L40,L42,L43
L58           2 S L57 AND (ZN OR ZINC)(L)FINGER
L59           3 S L57 AND L21
L60           3 S L58,L59
L61           2 S L60 NOT PESTICIDE
L62           2 S L51,L61
L63          41 S L57 AND (1 OR 15 OR 63)/SC
L64          25 S L57 AND (1 OR 15 OR 63)/SX
L65          63 S L63,L64
L66        2887 S L22(L)THU/RL
L67           9 S L66 AND L57
L68           8 S L67 NOT PESTICIDE?/CW
L69           8 S L62,L68
L70          54 S L65 NOT L67-L69
L71           3 S L70 AND SULFHYDRYL
L72          11 S L69,L71

     FILE 'REGISTRY' ENTERED AT 11:54:01 ON 16 SEP 2001
L73           1 S 9068-38-6
L74           1 S 37205-61-1

     FILE 'HCAPLUS' ENTERED AT 11:54:26 ON 16 SEP 2001
L75       10660 S L73 OR L74
L76          12 S L75 AND L56
L77           8 S L76 AND L57
L78          18 S L77,L72
L79          18 S L78 AND L1-L6,L23-L32,L35-L53,L55-L72,L75-L78
L80         104 S L17(L)THU/RL OR L18(L)THU/RL
L81          19 S L80 AND L24
L82           1 S L81 AND L25-L32,L35-L40,L42,L43,L75

     FILE 'REGISTRY' ENTERED AT 12:00:14 ON 16 SEP 2001
L83           2 S L16 AND (CU OR FE)/ELS

     FILE 'HCAPLUS' ENTERED AT 12:00:46 ON 16 SEP 2001
L84         410 S L83(L)THU/RL AND L24
L85          21 S L84 AND L25-L32,L35-L40,L42,L43,L75
L86          15 S L85 AND (1 OR 15 OR 63)/SC
L87           6 S L85 NOT L86
L88           2 S L87 AND 78/SC
L89          30 S L79,L86
                SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 12:04:19 ON 16 SEP 2001
L90          53 S E1-E53

     FILE 'REGISTRY' ENTERED AT 12:04:42 ON 16 SEP 2001
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     FILE 'HCAPLUS' ENTERED AT 12:05:06 ON 16 SEP 2001
L91       10218 S DISULFIDE#/CW
L92       40041 S KETONE#/CW
L93       10854 S MALEIMIDE
L94       64667 S NITRIC OXIDE
L95         754 S L91-L94 AND L25-L32,L35-L40,L42,L43,L75
L96         216 S L95 AND (PY<=1994 OR PRY<=1994 OR AY<=1994)
L97          17 S L96 AND 63/SC
L98          23 S L96 AND 1/SC
L99          32 S L96 AND 15/SC
L100         72 S L97-L99
L101          6 S L100 AND L89
L102         30 S L89,L101
L103         66 S L100 NOT L102
L104         13 S L103 AND (DIKETONE OR SSI OR DIONE OR MEDIATED OR DIFLUOROKET
                SEL DN 4 5 8 9 10 11 12
L105          7 S E54-E60
L106         37 S L102,L105
L107         37 S L106 AND L25-L32,L35-L40,L42,L43,L75-L82,L91-L106
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